



# **STIC Search Report**

## **Biotech-Chem Library**

**STIC Database Tracking Number: 124141**

**TO: Deborah Lambkin**

**Location:**

**Art Unit: 1626**

**June 8, 2004**

**Case Serial Number: 10/616359**

**From: P. Sheppard**

**Location: Remsen Building**

**Phone: (571) 272-2529**

**sheppard@uspto.gov**

### **Search Notes**

Access DB# 124/41

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Deborah Lambden Examiner #: 71300 Date: 6/7/04  
Art Unit: 1626 Phone Number: 301 571 7740 Serial Number: 10/66,357  
Mail Box and Bldg/Room Location: Box 931 Results-Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

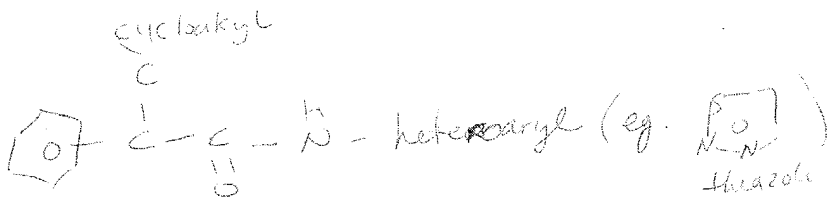
\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: HETEROAROMATIC GADOLINASEInventors (please provide full names): Bizzocchi et al

Earliest Priority Filing Date: \_\_\_\_\_

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



See claim 1 attached.

Thank Deb

## STAFF USE ONLY

Searcher: Sheppard

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Searcher Picked Up: \_\_\_\_\_

Date Completed: 6/8/04

Searcher Prep &amp; Review Time: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Online Time: \_\_\_\_\_

## Type of Search

NA Sequence (#) \_\_\_\_\_

AA Sequence (#) \_\_\_\_\_

Structure (#) \_\_\_\_\_

Bibliographic \_\_\_\_\_

Litigation \_\_\_\_\_

Fulltext \_\_\_\_\_

Patent Family \_\_\_\_\_

Other \_\_\_\_\_

## Vendors and cost where applicable

STN \_\_\_\_\_

Dialog \_\_\_\_\_

Questel/Orbit \_\_\_\_\_

Dr.Link \_\_\_\_\_

Lexis/Nexis \_\_\_\_\_

Sequence Systems \_\_\_\_\_

WWW/Internet \_\_\_\_\_

Other (specify) \_\_\_\_\_

=> fil hcaplus  
 FILE 'HCAPLUS' ENTERED AT 10:51:58 ON 08 JUN 2004  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

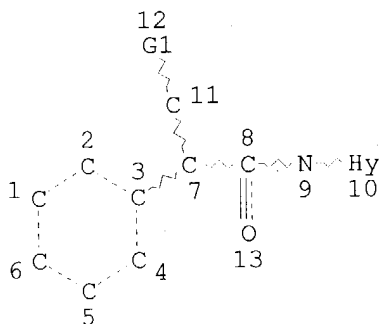
Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 Jun 2004 VOL 140 ISS 24  
 FILE LAST UPDATED: 7 Jun 2004 (20040607/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>  
 =>

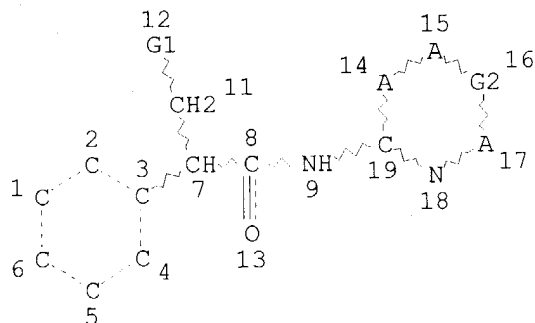
=> d stat que  
 L3 STR



VAR G1=CB/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU  
 NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE  
 L5 842 SEA FILE=REGISTRY SSS FUL L3  
 L10 STR



VAR G1=CB/ET/I-PR/N-PR/I-BU/N-BU/T-BU/S-BU

REP G2=(0-1) A

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L11 389 SEA FILE=REGISTRY SUB=L5 SSS FUL L10

L12 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L11

L13 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND PD=< MARCH 3, 1999

=>

=>

=> d ibib abs hitrn l13 1-3

L13 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:615181 HCAPLUS

DOCUMENT NUMBER: 123:9158

TITLE: Preparation of 2,3-diphenylpropanoates and  
N-(2,3-diphenylpropanoyl)benzenesulfonamides as  
endothelin antagonists

INVENTOR(S): Greenlee, William J.; Walsh, Thomas F.

PATENT ASSIGNEE(S): Merck and Co., Inc., USA

SOURCE: PCT Int. Appl., 150 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

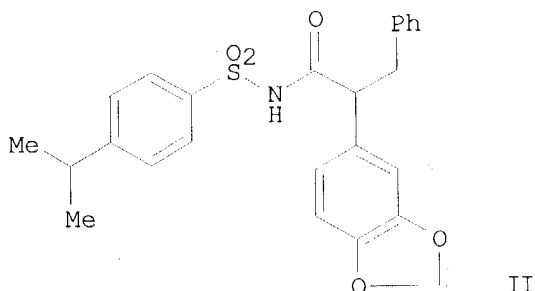
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND                                                                                                                                               | DATE     | APPLICATION NO. | DATE         |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|--------------|
| WO 9503295 | A1                                                                                                                                                 | 19950202 | WO 1994-US7693  | 19940715 <-- |
| W:         | AM, AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KE, KG, KR, KZ, LK, LT, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, US, UZ |          |                 |              |
| RW:        | AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG                             |          |                 |              |
| US 5686478 | A                                                                                                                                                  | 19971111 | US 1994-267981  | 19940707 <-- |
| AU 9472571 | A1                                                                                                                                                 | 19950220 | AU 1994-72571   | 19940715 <-- |
| AU 683677  | B2                                                                                                                                                 | 19971120 |                 |              |
| EP 710235  | A1                                                                                                                                                 | 19960508 | EP 1994-922117  | 19940715 <-- |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE  
 JP 09500644 T2 19970121 JP 1995-505175 19940715 <--  
 PRIORITY APPLN. INFO.: US 1993-95126 A 19930720  
 US 1994-267981 A 19940707  
 WO 1994-US7693 W 19940715

OTHER SOURCE(S): MARPAT 123:9158  
 GI



AB R1CR2R8(CR92)mR10 [I; R1,R10 = (un)substituted Ph; R2 = CO<sub>2</sub>H, alkoxyacarbonyl, CONHSO<sub>2</sub>Ph, etc.; R8 = H, alkyl, Ph, etc.; R9 = H (cyclo)alkyl, CO<sub>2</sub>H, alkoxyacarbonyl, CONH<sub>2</sub>, etc.] were prepared. Thus, 4(Me<sub>2</sub>HC)C<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>NH<sub>2</sub> was N-acylated by 3,4-methylenedioxyphenylacetic acid and the product alkylated by PhCH<sub>2</sub>Br to give title compound II. Selected I had IC<sub>50</sub> of at least <50 μM (sic) against endothelin binding at cloned human endothelin receptors in vitro.

IT **163844-30-2P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 2,3-diphenylpropanoates and N-(2,3-diphenylpropanoyl)benzenesulfonamides as endothelin antagonists)

L13 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1964:4864 HCAPLUS

DOCUMENT NUMBER: 60:4864

ORIGINAL REFERENCE NO.: 60:885c-f

TITLE: Effect of organic acids of pyridyl and thiazolylamides on certain members of coli-typhosae, staphylococcal, streptococcal groups and on acid-resistant mycobacteria

AUTHOR(S): Mndzhoyan, A. L.; Apoyan, N. A.; Zhuruli, L. D.; Ter-Zakharyan, Yu. Zh.

SOURCE: Biol. Svoistva Khim. Soedin., Akad. Nauk Arm. SSR, Inst. Tonkoi Organ. Khim. (1962), (1), 219-33

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB A series of compds. of various organic acids were obtained by using 2-aminopyridine and 4-methyl-2-aminothiazole as starting amines and varying the acid part of the mol. Aminopyridine derivs. (30) and 4-methyl-2-aminothiazole derivs. (30) were tested in vitro with respect to Escherichia coli, Shigella flexneri, Salmonella schottmuelleri, S. typhosa, Staphylococcus aureus, Streptococcus pyogenes, Mycobacterium tuberculosis, and Mycobacterium strains. Acid aliphatic derivs. and some aryl aliphatic acids appeared to be most active on microbes of coli-typhoid group. Apparently acid residues play an important role in

the creation of new biologically active compds. The action of 4-methyl-2-thiazolyl amides on *S. typhosa* proved to be more intensive than that of 2-pyridyl amides in reserving the same acid residue. A certain relation appears to exist between C-chain length and the tuberculocidal activity in fatty acid amides. The amides of acetic and propionic acids are most active. In relation to acid-resistant mycobacteria, the phenylamides of formic, acetic, and propionic acids are more active than the corresponding unsubstituted amides as well as those of unsatd. organic acids. Among all tested compds.,  $\alpha,\beta$ -diphenylpropionic acid 4-methyl-2-thiazolylamide possesses the highest activity on *M. tuberculosis*.

- IT **94378-14-0**, Propionamide, N-(4-methyl-2-thiazolyl)-2,3-diphenyl-  
**95554-57-7**, Propionamide, 3-(p-nitrophenyl)-2-phenyl-N-2-pyridyl-  
 (bactericidal action of)  
 IT **94332-58-8**, Propionamide, N-(4-methyl-2-thiazolyl)-3-(p-  
 nitrophenyl)-2-phenyl-  
 (bactericidal action of)

L13 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1958:25545 HCAPLUS  
 DOCUMENT NUMBER: 52:25545  
 ORIGINAL REFERENCE NO.: 52:4641a-c  
 TITLE: Amides of the pyridine and thiazole series  
 AUTHOR(S): Mndzhoyan, A. L.; Afrikyan, V. G.  
 SOURCE: Izvest. Akad. Nauk Armyan. S.S.R., Ser. Khim. Nauk (1957), 10, 143-56  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable

- AB The following R1NHCOR2 (I) and R3NHCOR2 (II) (R1 = 4-methyl-2-thiazolyl and R3 = 2-pyridyl) were prepared and their activities against *Mycobacterium* B5 and *Mycobacterium tuberculosis* K6 determined (R2, and m.p.s. of I and II given): H, 99-9.5°, 73-4°; Me, 135°, 66-7°; Et, 108-9°, 60-1°; Pr, 84-5°, 46-7°; Bu, 62-3°, 37-8°; Ph, 148-9°, 81-2°; PhCH2, 117-18°, 121°; Ph(CH2)2, 114°, 87°; Ph(CH2)3, 141-2°, 69-70°; p-MeOC6H4, 97°, 80°; PhCH:CH, 148-9°, 140°; PhCH2CHMe, 114-15°, 91°; PhCH2CHPh, 104°, 84°; PhCH:CPh, 141°, 105-6°; (PhCH2)2 CH, 136°, 138°; Ph2CH, 175°, 124°; p-O2NC6H4CH:CPh, 200°, 180°; R4(CH2)2(R4 = 2-furyl), 12°, 54-5°; R4CH:CH, 200°, 154°; R4CH2CHPh, 136-7°, 105°; R4CH:CPh, 160-1°, 125°. I and II (R2 = PhCH2CHPh) were the most active bacteriostats.  
 IT **94378-14-0**, Propionamide, N-(4-methyl-2-thiazolyl)-2,3-diphenyl-  
**99750-10-4**, Propionamide, 2,3-diphenyl-N-2-pyridyl-  
 (preparation of)

=> select hit rn l13 1-3  
 E1 THROUGH E5 ASSIGNED

=> fil reg  
 FILE 'REGISTRY' ENTERED AT 10:52:18 ON 08 JUN 2004  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 JUN 2004 HIGHEST RN 690625-61-7  
 DICTIONARY FILE UPDATES: 7 JUN 2004 HIGHEST RN 690625-61-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

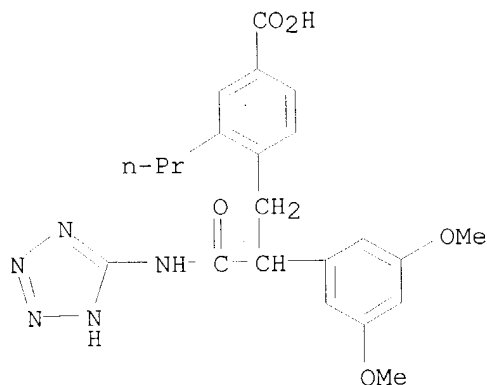
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

```
=>
=>
=> s e1-e5
      1 94378-14-0/BI
        (94378-14-0/RN)
      1 163844-30-2/BI
        (163844-30-2/RN)
      1 94332-58-8/BI
        (94332-58-8/RN)
      1 95554-57-7/BI
        (95554-57-7/RN)
      1 99750-10-4/BI
        (99750-10-4/RN)
L14    5 (94378-14-0/BI OR 163844-30-2/BI OR 94332-58-8/BI OR 95554-57-7/
        BI OR 99750-10-4/BI)
```

```
=>
=>
```

```
=> d ide can l14 1-5
```

```
L14  ANSWER 1 OF 5  REGISTRY  COPYRIGHT 2004 ACS on STN
RN    163844-30-2  REGISTRY
CN    Benzoic acid, 4-[2-(3,5-dimethoxyphenyl)-3-oxo-3-(1H-tetrazol-5-
      ylamino)propyl]-3-propyl- (9CI)  (CA INDEX NAME)
FS    3D CONCORD
MF    C22 H25 N5 O5
SR    CA
LC    STN Files:  CA, CAPLUS, TOXCENTER
DT.CA Caplus document type: Patent
RL.P  Roles from patents: BIOL (Biological study); PREP (Preparation); USES
      (Uses)
```

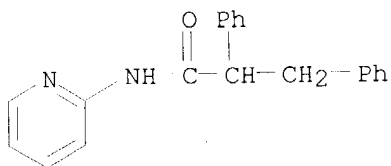


## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 123:9158

L14 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN  
RN **99750-10-4** REGISTRY  
CN Propionamide, 2,3-diphenyl-N-2-pyridyl- (7CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C20 H18 N2 O  
SR CAOLD  
LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, TOXCENTER  
(\*File contains numerically searchable property data)  
DT.CA Cplus document type: Journal  
RL.NP Roles from non-patents: NORL (No role in record)

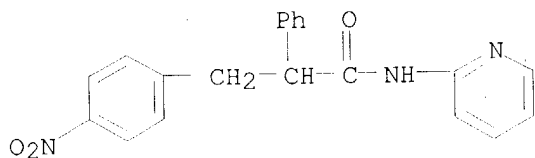


## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 52:25545

L14 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN  
RN **95554-57-7** REGISTRY  
CN Propionamide, 3-(p-nitrophenyl)-2-phenyl-N-2-pyridyl- (7CI) (CA INDEX NAME)  
FS 3D CONCORD  
MF C20 H17 N3 O3  
LC STN Files: CA, CAOLD, CAPLUS, TOXCENTER  
DT.CA Cplus document type: Journal  
RL.NP Roles from non-patents: NORL (No role in record)



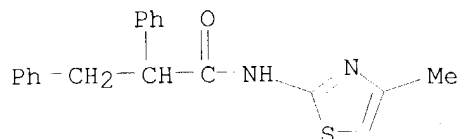
## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)



REFERENCE 1: 60:4864

L14 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN **94378-14-0** REGISTRY  
 CN Propionamide, N-(4-methyl-2-thiazolyl)-2,3-diphenyl- (6CI, 7CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C19 H18 N2 O S  
 LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, TOXCENTER  
 (\*File contains numerically searchable property data)  
 DT.CA Caplus document type: Journal  
 RL.NP Roles from non-patents: NORL (No role in record)



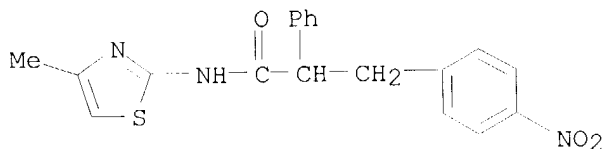
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 60:4864

REFERENCE 2: 52:25545

L14 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN **94332-58-8** REGISTRY  
 CN Propionamide, N-(4-methyl-2-thiazolyl)-3-(p-nitrophenyl)-2-phenyl- (7CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C19 H17 N3 O3 S  
 LC STN Files: CA, CAOLD, CAPLUS, TOXCENTER  
 DT.CA Caplus document type: Journal  
 RL.NP Roles from non-patents: NORL (No role in record)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)  
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 60:4864

=&gt;

=> fil hcaplus  
FILE 'HCAPLUS' ENTERED AT 10:53:07 ON 08 JUN 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 8 Jun 2004 VOL 140 ISS 24  
FILE LAST UPDATED: 7 Jun 2004 (20040607/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=>  
=>

=> => d stat que l15 nos  
L3 STR  
L5 842 SEA FILE=REGISTRY SSS FUL L3  
L10 STR  
L11 389 SEA FILE=REGISTRY SUB=L5 SSS FUL L10  
L12 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L11  
L13 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 AND PD=< MARCH 3, 1999  
L15 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L12 NOT L13

=>  
=>

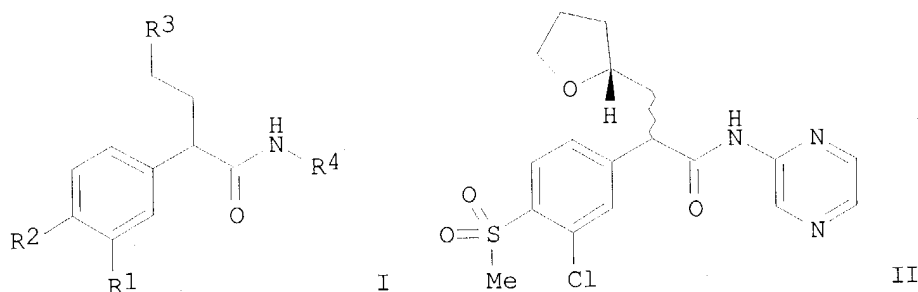
=> d ibib abs hitrn l15 1-10

L15 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2003:913152 HCAPLUS  
DOCUMENT NUMBER: 139:395954  
TITLE: Preparation of N-heteroaryl phenylacetamides and related compounds as glucokinase activators for treatment of type II diabetes  
INVENTOR(S): Corbett, Wendy Lea; Grimsby, Joseph Samuel; Haynes, Nancy-Ellen; Kester, Robert Francis; Mahaney, Paige Erin; Racha, Jagdish Kumar; Sarabu, Ramakanth; Wang, Ka  
PATENT ASSIGNEE(S): F. Hoffmann-La Roche AG, Switz.  
SOURCE: PCT Int. Appl., 172 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

WO 2003095438 A1 20031120 WO 2003-EP3844 20030414  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
 CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
 GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
 LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,  
 PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,  
 TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,  
 RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,  
 NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
 GW, ML, MR, NE, SN, TD, TG

US 2003225283 A1 20031204 US 2003-421109 20030423  
 PRIORITY APPLN. INFO.: US 2002-376161P P 20020426  
 OTHER SOURCE(S): MARPAT 139:395954  
 GI



AB Title compds. I [wherein R1 and R2 = independently H, halo, (hydroxy)amino, CN, NO2, (perfluoro)alkyl, (perfluoro)alkylthio, (perfluoro)alkylsulfonyl, alkylsulfinyl, sulfonamido, OR5, or CO2R6; R3 = (un)substituted unbranched (hetero)alkyl; or CR3 = (hetero)cyclyl; R4 = CONHR6 or (un)substituted heteroaryl; R5 = H or (perfluoro)alkyl; R6 = alkyl; and pharmaceutically acceptable salts thereof] were prepared as glucokinase (GK) activators. For example, reaction of (3-chloro-4-methylsulfonylphenyl)acetic acid Me ester and trifluoromethanesulfonic acid ((R)-tetrahydrofuran-2-yl)methyl ester (preparation of starting materials given) produced 2-(3-chloro-4-methylsulfonylphenyl)-3-(tetrahydrofuran-2(R)-yl)propionic acid Me ester (52%), which was saponified with 0.8M aqueous LiOH to give the acid (95.8%). Amidation with 2-aminopyrazine (66.1%) in the presence of DMF and oxalyl chloride in CH2Cl2, followed by oxidation with 30% aqueous hydrogen peroxide afforded II (67.1%). SC1.5 (concentration producing a 50% increase in activity) values of  $\leq 30 \mu\text{M}$  for activation of human liver GK1 expressed in E. coli as a glutathione S-transferase fusion protein (GST-GT) were obtained for all of the synthesized invention compds. Thus, I and their pharmaceutical compns. are useful in the treatment of type II diabetes (no data).

IT **625112-91-6P**, 2-(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-N-(5-chloropyrazin-2-yl)-3-(4-oxocyclohexyl)propionamide **625113-26-0P**, 2-(3,4-Dichlorophenyl)-3-(2-hydroxycyclopentyl)-N-(thiazol-2-yl)propionamide **625113-30-6P**, 3-(2-Hydroxycyclopentyl)-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **625113-40-8P**, 2-(3,4-Dichlorophenyl)-3-(3-hydroxycyclopentyl)-N-(thiazol-2-yl)propionamide **625113-89-5P**, 3-(3-Hydroxycyclopentyl)-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **625113-95-3P** **625114-16-1P**, 2-(3,4-Dichlorophenyl)-3-(3-oxocyclopentyl)-N-(thiazol-2-yl)propionamide

625114-26-3P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-(3-oxocyclopentyl)-N-(pyrazin-2-yl)propionamide 625114-44-5P, N-(5-Bromopyrazin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-(3-oxocyclopentyl)propionamide 625114-55-8P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-(4-oxocyclohexyl)-N-(pyrazin-2-yl)propionamide 625114-61-6P, N-(5-Bromopyrazin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-(4-oxocyclohexyl)propionamide 625114-62-7P 625114-65-0P 625114-67-2P 625114-68-3P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(GK activator; preparation of phenylacetamides as glucokinase activators for treatment of type II diabetes)

IT 625113-36-2P, 2-(3,4-Dichlorophenyl)-3-(2-oxocyclopentyl)-N-(thiazol-2-yl)propionamide 625113-38-4P, 2-[4-(Methanesulfonyl)phenyl]-3-(2-oxocyclopentyl)-N-(thiazol-2-yl)propionamide 625113-54-4P 625113-56-6P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-(2-hydroxyiminocyclopentyl)-N-(pyrazin-2-yl)propionamide 625113-65-7P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-[2-(methoxyimino)cyclopentyl]-N-(pyrazin-2-yl)propionamide 625113-67-9P, 2-(3,4-Dichlorophenyl)-3-(2,2-difluorocyclopentyl)-N-(thiazol-2-yl)propionamide 625114-04-7P, 2-(3,4-Dichlorophenyl)-3-(3-methoxycyclopentyl)-N-(thiazol-2-yl)propionamide 625114-08-1P, Acetic acid 3-[2-(3,4-dichlorophenyl)-2-[(thiazol-2-yl)carbamoyl]ethyl]cyclopentyl ester 625114-10-5P, 2-(3,4-Dichlorophenyl)-3-(3-fluorocyclopentyl)-N-(thiazol-2-yl)propionamide 625114-24-1P, 2-[4-(Methanesulfonyl)phenyl]-3-(3-oxocyclopentyl)-N-(thiazol-2-yl)propionamide 625114-35-4P 625114-41-2P 625114-45-6P, 2-(3,4-Dichlorophenyl)-3-(3-hydroxyiminocyclopentyl)-N-(thiazol-2-yl)propionamide 625114-46-7P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-(3-hydroxyiminocyclopentyl)-N-(pyrazin-2-yl)propionamide 625114-47-8P, N-(5-Bromopyrazin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-(3-hydroxyiminocyclopentyl)propionamide 625114-48-9P, 2-(3,4-Dichlorophenyl)-3-[3-(methoxyimino)cyclopentyl]-N-(thiazol-2-yl)propionamide 625114-49-0P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-[3-(methoxyimino)cyclopentyl]-N-(pyrazin-2-yl)propionamide 625114-50-3P, N-(5-Bromopyrazin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-[3-(methoxyimino)cyclopentyl]propionamide 625114-51-4P, 2-(3,4-Dichlorophenyl)-3-(3,3-difluorocyclopentyl)-N-(thiazol-2-yl)propionamide 625114-54-7P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-(3-hydroxy-3-methylcyclopentyl)-N-(pyrazin-2-yl)propionamide 625114-69-4P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-(4-hydroxyiminocyclohexyl)-N-(pyrazin-2-yl)propionamide 625114-70-7P, N-(5-Bromopyrazin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-(4-hydroxyiminocyclohexyl)propionamide 625114-71-8P 625114-72-9P 625114-73-0P 625114-74-1P 625114-75-2P 625114-76-3P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-[4-(methoxyimino)cyclohexyl]-N-(pyrazin-2-yl)propionamide 625114-77-4P, N-(5-Bromopyrazin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-[4-(methoxyimino)cyclohexyl]propionamide 625826-90-6P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(GK activator; preparation of phenylacetamides as glucokinase activators for treatment of type II diabetes)

IT 625113-33-9P, 2-[4-(Methanesulfonyl)phenyl]-3-[2-[(tetrahydropyran-2-yl)oxy]cyclopentyl]-N-(thiazol-2-yl)propionamide 625113-63-5P, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-(2-oxocyclopentyl)-N-(pyrazin-2-yl)propionamide 625113-93-1P, 2-[4-(Methanesulfonyl)phenyl]-3-[3-

[(tetrahydropyran-2-yl)oxy]cyclopentyl]-N-(thiazol-2-yl)propionamide  
**625114-02-5P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(intermediate; preparation of phenylacetamides as glucokinase activators for  
 treatment of type II diabetes)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:667406 HCAPLUS

DOCUMENT NUMBER: 139:214460

TITLE: Preparation of cycloalkylheteroaryl propionamides as  
 glucokinase activators for treatment of type II  
 diabetes

INVENTOR(S): Bizzarro, Fred Thomas; Corbett, Wendy Lea; Grippo,  
 Joseph Francis; Haynes, Nancy-Ellen; Holland, George  
 William; Kester, Robert Francis; Mahaney, Paige Erin;  
 Sarabu, Ramakanth

PATENT ASSIGNEE(S): Hoffmann-La Roche Inc., USA

SOURCE: U.S., 92 pp., Cont.-in-part of U.S. 6,320,050

CODEN: USXXAM

DOCUMENT TYPE: Patent

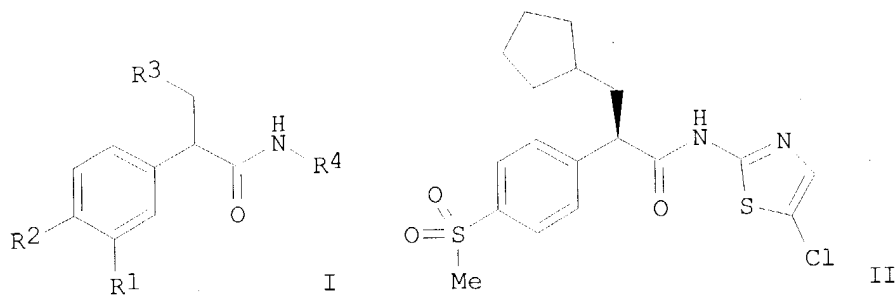
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| US 6610846             | B1   | 20030826 | US 2000-675781  | 20000928    |
| US 2001039344          | A1   | 20011108 | US 2000-526143  | 20000315    |
| US 6320050             | B2   | 20011120 |                 |             |
| ZA 2001007833          | A    | 20021223 | ZA 2001-7833    | 20010921    |
| US 2004014968          | A1   | 20040122 | US 2003-616359  | 20030709    |
| PRIORITY APPLN. INFO.: |      |          | US 1999-126707P | P 19990329  |
|                        |      |          | US 1999-165944P | P 19991117  |
|                        |      |          | US 2000-526143  | A2 20000315 |
|                        |      |          | US 2000-675781  | A3 20000928 |

OTHER SOURCE(S): MARPAT 139:214460  
 GI



AB Title compds. [I; R1, R2 = H, halo, amino, hydroxyamino, NO<sub>2</sub>, cyano, sulfonamido, perfluoroalkyl, alkylthio, alkylsulfonyl, alkylsulfinyl, etc.; R3 = alkyl, cycloalkyl; R4 = certain un- or monosubstituted 5- and 6-membered heteroarom. rings connected by a ring C atom; R4 (claims) = un- or monosubstituted triazine, pyrazine, or pyridazine; and their pharmaceutical acceptable salts], were prepared via amidation, for use as glucokinase activators for treatment of type II diabetes. Thus, the invention compound N-(5-chlorothiazol-2-yl)-3-cyclopentyl-2(R)-[4-

(methanesulfonyl)phenyl]propionamide (II) was prepared by addition of 3-cyclopentyl-2(R)-[4-(methanesulfonyl)phenyl]propionic acid (preparation given) to a stirred mixture of triphenylphosphine and N-bromosuccinimide in methylene chloride at 0°, followed by stirring at room temperature for 30 min, addition of a solution of 2-amino-5-chlorothiazole hydrochloride and pyridine in methylene chloride, and stirring at 25° overnight. All of the exemplified compds. I activated glucokinase in vitro, exhibiting an  $SC_{1.5} \leq 30 \mu M$ . Selected invention compds. exhibited glucokinase activator activity in vivo when administered orally to mice. Thus, I are expected to increase insulin secretion in the treatment of type II diabetes.

- IT **300353-44-0P**, 3-Cyclopentyl-2-(4-nitrophenyl)-N-pyridin-2-ylpropionamide  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (glucokinase activator, intermediate; preparation of cycloalkylheteroaryl propionamides as glucokinase activators)
- IT **300352-88-9P**, [2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazol-4-yl]acetic acid ethyl ester  
**300352-92-5P**, 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-5-carboxylic acid ethyl ester  
**300352-96-9P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **300352-98-1P**, 2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazole-4-carboxylic acid ethyl ester **300353-00-8P**, [2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazol-4-yl]acetic acid ethyl ester **300353-06-4P**, 3-Cyclopentyl-2-[4-(methylsulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **300353-13-3P**, (2R)-3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **300353-14-4P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-nitrophenyl]-N-(thiazol-2-yl)propionamide **300353-18-8P**, [2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazol-4-yl]acetic acid **300353-19-9P**, 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-5-carboxylic acid **300353-20-2P**, 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-4-carboxylic acid **300353-24-6P**, 3-Cyclopentyl-2-(4-nitrophenyl)-N-(thiazol-2-yl)propionamide **300353-26-8P**, [2-[[3-Cyclopentyl-2-(4-nitrophenyl)propionyl]amino]thiazol-4-yl]acetic acid ethyl ester **300353-27-9P**, [2-[[3-Cyclopentyl-2-(4-nitrophenyl)propionyl]amino]thiazol-4-yl]acetic acid methyl ester **300353-29-1P**, 2-[[3-Cyclopentyl-2-(4-nitrophenyl)propionyl]amino]thiazole-4-carboxylic acid methyl ester **300353-31-5P**, [2-[[2-(3-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazol-4-yl]acetic acid ethyl ester **300353-34-8P**, [2-[[2-(4-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazol-4-yl]acetic acid ethyl ester **300353-35-9P**, 2-[[2-(4-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazole-4-carboxylic acid methyl ester **300353-50-8P**, 6-[[3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)propionyl]amino]nicotinic acid methyl ester **300353-51-9P**, 6-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]nicotinic acid **300354-23-8P**, 3-Cyclopentyl-2-(3-methoxyphenyl)-N-(thiazol-2-yl)propionamide **300354-26-1P**, 3-Cyclopentyl-2-(3,4-dimethoxyphenyl)-N-(thiazol-2-yl)propionamide **300354-28-3P**, 3-Cyclopentyl-2-(4-methoxyphenyl)-N-(thiazol-2-yl)propionamide **300354-31-8P**, 3-Cyclopentyl-2-(3-fluoro-4-methoxyphenyl)-N-(thiazol-2-yl)propionamide **300354-34-1P**, 6-[[3-Cyclopentyl-2-(4-nitrophenyl)propionyl]amino]nicotinic acid methyl ester **300355-31-1P**, 2-[[2-(4-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazole-4-carboxylic acid ethyl ester **300355-33-3P**, 6-[[2-(4-Chlorophenyl)-3-cyclopentylpropionyl]amino]nicotinic acid methyl ester

**300355-36-6P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-[5-(carboxymethyl)pyridin-2-yl]propionamide **300355-44-6P**, 2-[[3-Cyclopentyl-2-(4-nitrophenyl)propionyl]amino]thiazole-4-carboxylic acid ethyl ester **300355-49-1P**, 6-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]nicotinic acid methyl ester **300356-30-3P**, 6-[[2-(3-Chlorophenyl)-3-cyclopentylpropionyl]amino]nicotinic acid methyl ester **300356-87-0P**, 2-[[2-(3-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazole-4-carboxylic acid ethyl ester  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(glucokinase activator; preparation of cycloalkylheteroaryl propionamides as glucokinase activators)

IT **300352-85-6P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(thiazol-2-yl)-propionamide **300352-86-7P**, [2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazol-4-yl](oxo)acetic acid ethyl ester **300352-87-8P**, [2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazol-5-yl](oxo)acetic acid ethyl ester **300352-89-0P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-methylthiazol-2-yl)propionamide **300352-90-3P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(4-methylthiazol-2-yl)propionamide **300352-93-6P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-nitrothiazol-2-yl)propionamide **300352-94-7P**, 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-4-carboxylic acid amide **300352-95-8P**, 2-(4-Bromophenyl)-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300352-97-0P**, 2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazole-4-carboxylic acid methyl ester **300352-99-2P**, [2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazol-4-yl]acetic acid methyl ester **300353-01-9P**, 2-(4-Aminophenyl)-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-02-0P**, 2-(3-Aminophenyl)-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-03-1P**, 2-(3-Chlorophenyl)-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-04-2P**, 2-(4-Chlorophenyl)-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-05-3P**, 3-Cyclopentyl-N-(thiazol-2-yl)-2-(4-trifluoromethylphenyl)propionamide **300353-07-5P**, 3-Cyclopentyl-N-(thiazol-2-yl)-2-[4-(trifluoromethylsulfonyl)phenyl]propionamide **300353-08-6P**, 3-Cyclopentyl-N-(thiazol-2-yl)-2-[4-(trifluoromethanesulfonyl)phenyl]propionamide **300353-09-7P**, 2-[[3-Cyclopentyl-2-[4-(trifluoromethanesulfonyl)phenyl]propionyl]amino]thiazole-4-carboxylic acid methyl ester **300353-10-0P**, 2-[[3-Cyclopentyl-2-[4-(trifluoromethanesulfonyl)phenyl]propionyl]amino]thiazole-4-carboxylic acid ethyl ester **300353-11-1P**, [2-[[3-Cyclopentyl-2-[4-(trifluoromethanesulfonyl)phenyl]propionyl]amino]thiazol-4-yl]acetic acid methyl ester **300353-12-2P**, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-15-5P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-hydroxymethylthiazol-2-yl)propionamide **300353-16-6P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-[4-(2-hydroxyethyl)thiazol-2-yl]propionamide **300353-17-7P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(4-hydroxymethylthiazol-2-yl)propionamide **300353-21-3P**, [2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazol-4-yl]acetic acid methyl ester **300353-22-4P**, 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-4-carboxylic acid methyl ester **300353-23-5P**, 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-5-carboxylic acid methyl ester **300353-25-7P**, [2-[[3-Cyclopentyl-2-(4-nitrophenyl)propionyl]amino]thiazol-4-yl]-(oxo)acetic acid ethyl ester **300353-28-0P**, [2-[[2-(4-Aminophenyl)-3-cyclopentylpropionyl]amino]thiazol-4-yl]acetic acid methyl ester **300353-30-4P**, 2-[[2-(4-Aminophenyl)-3-

cyclopentylpropionyl]amino]thiazole-4-carboxylic acid methyl ester  
**300353-32-6P**, [2-[[2-(3-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazol-4-yl]acetic acid methyl ester  
**300353-33-7P**, 2-[[2-(3-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazole-4-carboxylic acid methyl ester  
**300353-36-0P**, [2-[[2-(4-Chlorophenyl)-3-cyclopentylpropionyl]amino]thiazol-4-yl]acetic acid methyl ester  
**300353-38-2P**, 3-Cyclopentyl-N-(4-hydroxymethylthiazol-2-yl)-2-[4-(methanesulfonyl)phenyl]propionamide **300353-39-3P**,  
 3-Cyclopentyl-N-[4-(2-hydroxyethyl)thiazol-2-yl]-2-[4-(methanesulfonyl)phenyl]propionamide **300353-40-6P**,  
 (2R)-2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-4-carboxylic acid methyl ester **300353-42-8P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-pyridin-2-ylpropionamide **300353-45-1P**,  
 3-Cyclopentyl-2-[4-(methylsulfonyl)phenyl]-N-pyridin-2-ylpropionamide **300353-46-2P**, 3-Cyclopentyl-N-pyridin-2-yl-2-[4-(trifluoromethylsulfonyl)phenyl]propionamide **300353-47-3P**,  
 3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]-N-pyridin-2-ylpropionamide **300353-48-4P**, 3-Cyclopentyl-N-pyridin-2-yl-2-[4-(trifluoromethanesulfonyl)phenyl]propionamide **300353-49-5P**,  
 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-nitrophenyl]-N-pyridin-2-ylpropionamide **300353-52-0P**, 6-[[2-(4-Chlorophenyl)-3-cyclopentylpropionyl]amino]nicotinic acid **300353-53-1P**,  
 6-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]nicotinic acid **300353-54-2P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-hydroxymethylpyridin-2-yl)propionamide **300353-55-3P**,  
 2-(4-Chlorophenyl)-3-cyclopentyl-N-(5-hydroxymethylpyridin-2-yl)propionamide **300353-56-4P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-hydroxypyridin-2-yl)propionamide **300353-57-5P**,  
 3-Cyclopentyl-N-(5-hydroxymethylpyridin-2-yl)-2-[4-(methanesulfonyl)phenyl]propionamide **300353-58-6P**,  
 3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]-N-(5-methylpyridin-2-yl)propionamide **300353-59-7P**, N-(5-Chloropyridin-2-yl)-3-cyclopentyl-2(R)-(3,4-dichlorophenyl)propionamide **300353-60-0P**,  
 3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)-N-pyridin-2-ylpropionamide **300353-61-1P**, 3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)-N-(thiazol-2-yl)propionamide **300353-62-2P**, (2R)-[2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazol-5-yl](oxo)acetic acid ethyl ester **300353-63-3P**, (2R)-[2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazol-4-yl](oxo)acetic acid ethyl ester **300353-64-4P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(1H-imidazol-2-yl)propionamide **300353-65-5P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-methylisoxazol-3-yl)propionamide **300353-66-6P**,  
 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(oxazol-2-yl)propionamide **300353-67-7P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-pyridazin-3-ylpropionamide **300353-68-8P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-pyrimidin-2-ylpropionamide **300353-69-9P**,  
 3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)-N-pyrimidin-4-ylpropionamide **300353-70-2P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **300353-71-3P**, [2-[[3-Cyclopentyl-2-[4-(trifluoromethanesulfonyl)phenyl]propionyl]amino]thiazol-4-yl]acetic acid ethyl ester **300353-72-4P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-[4-(trifluoromethanesulfonyl)phenyl]propionamide **300353-73-5P**,  
 2-(4-Chloro-3-nitrophenyl)-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-74-6P**, 2-(4-Chloro-3-nitrophenyl)-3-cyclopentyl-N-pyridin-2-ylpropionamide **300353-75-7P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-[4-(methanesulfonyl)-3-nitrophenyl]propionamide **300353-76-8P**, 3-Cyclopentyl-2-[3-hydroxyamino-4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **300353-77-9P**,  
 2-[3-Amino-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-78-0P**, 3-Cyclopentyl-N-(thiazol-2-yl)-2-[3-(trifluoromethanesulfonyl)phenyl]propionamide **300353-79-1P**,  
 3-Cyclopentyl-2-(3-fluoro-4-trifluoromethylphenyl)-N-(thiazol-2-



yl)propionamide **300353-80-4P**, 3-Cyclopentyl-2-(3-fluoro-4-trifluoromethylphenyl)-N-pyridin-2-ylpropionamide **300353-81-5P**, 2-[3-Bromo-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-82-6P**, 2-[3-Bromo-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyridin-2-ylpropionamide **300353-83-7P**, 2-[3-Bromo-4-(methanesulfonyl)phenyl]-N-(5-bromopyridin-2-yl)-3-cyclopentylpropionamide **300353-84-8P**, 2-[3-Cyano-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-85-9P**, 2-[3-Cyano-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyridin-2-ylpropionamide **300353-86-0P**, 3-Cyclopentyl-2-[4-(ethanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **300353-87-1P**, 3-Cyclopentyl-2-[4-(ethanesulfonyl)phenyl]-N-pyridin-2-ylpropionamide **300353-88-2P**, 2-[3,4-Bis(methanesulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-89-3P**, 2-[3,4-Bis(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyridin-2-ylpropionamide **300353-90-6P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-[1,2,4]triazin-3-ylpropionamide **300353-91-7P**, 3-Cyclopentyl-2-(4-sulfamoylphenyl)-N-(thiazol-2-yl)propionamide **300353-92-8P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-[1,3,4]thiadiazol-2-ylpropionamide **300353-93-9P**, 2-(4-Cyanophenyl)-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-94-0P**, 3-Cyclopentyl-N-pyridin-2-yl-2-(4-trifluoromethylphenyl)propionamide **300353-95-1P**, 2-[4-(Butan-1-ylsulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300353-96-2P**, 3-Cyclopentyl-2-[4-(propan-1-ylsulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **300353-97-3P**, 3-Cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)-N-(thiazol-2-yl)propionamide **300353-98-4P**, [2-[[3-Cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)propionyl]amino]thiazol-4-yl] (oxo)acetic acid ethyl ester **300353-99-5P**, 3-Cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)-N-(5-methylpyridin-2-yl)propionamide **300354-00-1P**, 3-Cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)-N-pyridin-2-ylpropionamide **300354-01-2P**, 3-Cyclopentyl-N-(thiazol-2-yl)-2-(3-trifluoromethylphenyl)propionamide **300354-02-3P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-(thiazol-2-yl)propionamide **300354-03-4P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-pyridin-2-ylpropionamide **300354-04-5P**, 3-Cyclopentyl-2-[4-(methylsulfonyl)-3-trifluoromethylphenyl]-N-(thiazol-2-yl)propionamide **300354-05-6P**, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyridin-2-ylpropionamide **300354-06-7P**, N-(5-Bromopyridin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-cyclopentylpropionamide **300354-07-8P**, N-(5-Chloropyridin-2-yl)-2-[3-chloro-4-(methanesulfonyl)phenyl]-3-cyclopentylpropionamide **300354-08-9P**, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(5-trifluoromethylpyridin-2-yl)propionamide **300354-09-0P**, [2-[[2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentylpropionyl]amino]thiazol-4-yl] (oxo)acetic acid ethyl ester **300354-10-3P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300354-11-4P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyridin-2-ylpropionamide **300354-12-5P**, N-(5-Bromopyridin-2-yl)-2(R)-[3-chloro-4-(methanesulfonyl)phenyl]-3-cyclopentylpropionamide **300354-13-6P**, N-(5-Cyanopyridin-2-yl)-3-cyclopentyl-2-(3,4-dichlorophenyl)propionamide **300354-14-7P**, 3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)-N-(5-trifluoromethylpyridin-2-yl)propionamide **300354-15-8P**, 6-[[3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)propionyl]amino]nicotinic acid **300354-16-9P**, 6-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]-N-methylnicotinamide **300354-17-0P**, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-pyrazin-2-ylpropionamide **300354-18-1P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2(R)-(3,4-dichlorophenyl)propionamide **300354-19-2P**, 3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)-N-(5-hydroxymethylpyridin-2-yl)propionamide

300354-20-5P, 3-Cycloheptyl-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide 300354-21-6P, 3-Cyclohexyl-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide 300354-24-9P, 3-Cyclopentyl-2-(3-hydroxyphenyl)-N-(thiazol-2-yl)propionamide 300354-25-0P, 3-Cyclopentyl-N-(thiazol-2-yl)-2-(4-trifluoromethoxyphenyl)propionamide 300354-27-2P, 3-Cyclopentyl-2-(3,4-dihydroxyphenyl)-N-(thiazol-2-yl)propionamide 300354-29-4P, 3-Cyclopentyl-2-(4-hydroxyphenyl)-N-(thiazol-2-yl)propionamide 300354-30-7P, 4-[2-Cyclopentyl-1-(thiazol-2-yl)carbamoyl]ethylbenzoic acid methyl ester 300354-32-9P, 3-Cyclopentyl-2-(3-fluoro-4-hydroxyphenyl)-N-(thiazol-2-yl)propionamide 300354-33-0P, 6-[[2-(3-Chlorophenyl)-3-cyclopentylpropionyl]amino]nicotinic acid 300354-35-2P, 2-(4-Aminophenyl)-3-cyclopentyl-N-pyridin-2-ylpropionamide 300354-36-3P, 6-[[2-(4-Aminophenyl)-3-cyclopentylpropionyl]amino]nicotinic acid methyl ester 300354-37-4P, 3-Cyclohexyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-(thiazol-2-yl)propionamide 300355-32-2P, 2-(4-Chlorophenyl)-3-cyclopentyl-N-pyridin-2-ylpropionamide 300355-35-5P, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-nitropyridin-2-yl)propionamide 300355-37-7P, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-pyrimidin-4-ylpropionamide 300355-38-8P, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-methylpyridin-2-yl)propionamide 300355-39-9P, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(4-methylpyridin-2-yl)propionamide 300355-40-2P, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(6-methylpyridin-2-yl)propionamide 300355-41-3P, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-chloropyridin-2-yl)propionamide 300355-42-4P, 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(5-bromopyridin-2-yl)propionamide 300355-43-5P, 3-Cyclopentyl-2-(4-nitrophenyl)-N-pyrimidin-4-ylpropionamide 300355-45-7P, N-(5-Chloropyridin-2-yl)-3-cyclopentyl-2-[4-(trifluoromethanesulfonyl)phenyl]propionamide 300355-46-8P, 3-Cyclopentyl-N-(5-methylpyridin-2-yl)-2-[4-(trifluoromethanesulfonyl)phenyl]propionamide 300355-47-9P, 6-[[3-Cyclopentyl-2-[4-(trifluoromethanesulfonyl)phenyl]propionyl]amino]nicotinic acid methyl ester 300355-90-2P, 2-(4-Cyanophenyl)-3-cyclopentyl-N-pyridin-2-ylpropionamide 300355-91-3P, 6-[[2-(4-Cyanophenyl)-3-cyclopentylpropionyl]amino]nicotinic acid methyl ester 300355-92-4P, 6-[[3-Cyclopentyl-2-(4-trifluoromethylphenyl)propionyl]amino]nicotinic acid methyl ester 300356-01-8P, [2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]propionyl]amino]thiazol-4-yl]acetic acid methyl ester 300356-02-9P, 2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]propionyl]amino]thiazole-4-carboxylic acid methyl ester 300356-70-1P, 2-(3-Chlorophenyl)-3-cyclopentyl-N-pyridin-2-ylpropionamide 588929-69-5P, 2-(4-Chlorophenyl)-3-cyclopentyl-N-(5-hydroxymethylthiazol-2-yl)propionamide 588939-23-5P, 3-Cyclopentyl-2-[4-(methoxymethanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide 588939-54-2P, 3-Cyclopentyl-2(R)-[4-(methylsulfanyl)phenyl]-N-pyrazin-2-ylpropionamide 588939-59-7P, 3-Cyclopentyl-2(R)-[4-(methylsulfanyl)phenyl]-N-pyrazin-2-ylpropionamide 588939-65-5P, 3-Cyclopentyl-2(R)-[4-(methanesulfonyl)phenyl]-N-(4-methylthiazol-2-yl)propionamide 588939-79-1P, 3-Cyclopentyl-2(R)-[4-(methanesulfonyl)phenyl]-N-(5-methylthiazol-2-yl)propionamide 588939-85-9P, N-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionamide 588939-90-6P, N-(5-Chlorothiazol-2-yl)-3-cyclopentyl-2(R)-[4-(methanesulfonyl)phenyl]propionamide 588939-98-4P, N-(5-Bromothiazol-2-yl)-3-cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionamide 588940-11-8P, N-(5-Bromothiazol-2-yl)-3-cyclopentyl-2(R)-[4-(methanesulfonyl)phenyl]propionamide 588940-17-4P, 2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazole-5-

carboxylic acid amide **588940-38-9P**, 3-Cyclopentyl-2-[3-fluoro-4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide **588940-56-1P**, 3-Cyclopentyl-2-[3-fluoro-4-(methanesulfonyl)phenyl]-N-pyridin-2-ylpropionamide **588940-63-0P**, N-(5-Bromothiazol-2-yl)-2(R)-[3-chloro-4-(methanesulfonyl)phenyl]-3-cyclopentylpropionamide **588940-83-4P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(5-methylthiazol-2-yl)propionamide **588940-88-9P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(4-methylthiazol-2-yl)propionamide **588940-95-8P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(5-methylpyridin-2-yl)propionamide **588941-00-8P**, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrimidin-4-ylpropionamide **588941-05-3P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrimidin-4-ylpropionamide **588941-11-1P**, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(2-methylpyrimidin-4-yl)propionamide **588941-17-7P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(2-methylpyrimidin-4-yl)propionamide **588941-33-7P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(2-oxo-1,2-dihydropyrimidin-4-yl)propionamide **588941-40-6P**, 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrazin-2-ylpropionamide **588941-45-1P**, 2(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrazin-2-ylpropionamide **588941-51-9P**, 2-[3-Bromo-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrimidin-4-ylpropionamide **588941-57-5P**, 2-[3-Bromo-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(2-methylpyrimidin-4-yl)propionamide **588941-62-2P**, 2-[3-Bromo-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrazin-2-ylpropionamide **588941-68-8P**, 2-[3-Bromo-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(1H-imidazol-2-yl)propionamide **588941-73-5P**, 2-[3-Cyano-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrimidin-4-ylpropionamide **588941-78-0P**, 2-[3-Cyano-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-(2-methylpyrimidin-4-yl)propionamide **588941-84-8P**, 2-[3-Cyano-4-(methanesulfonyl)phenyl]-3-cyclopentyl-N-pyrazin-2-ylpropionamide **588941-90-6P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-(5-nitropyridin-2-yl)propionamide **588941-95-1P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-(4-methylsulfanyl-3-trifluoromethylphenyl)propionamide **588941-99-5P**, N-(5-Cyanopyridin-2-yl)-3-cyclopentyl-2-(4-methylsulfanyl-3-trifluoromethylphenyl)propionamide **588942-03-4P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-(2-oxo-2,3-dihydropyrimidin-4-yl)propionamide **588942-07-8P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-pyrimidin-4-ylpropionamide **588942-11-4P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-pyrazin-2-ylpropionamide **588942-15-8P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-(2-methylpyrimidin-4-yl)propionamide **588942-19-2P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]propionamide **588942-28-3P**, 3-Cyclopentyl-2(R)-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-(thiazol-2-yl)propionamide **588942-33-0P**, 3-Cyclopentyl-2(R)-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-pyrimidin-4-ylpropionamide **588942-55-6P**, 3-Cyclopentyl-2(R)-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-pyrazin-2-ylpropionamide **588942-60-3P**, 3-Cyclopentyl-2(R)-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-(2-methylpyrimidin-4-yl)propionamide **588942-64-7P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-nitrophenyl]-N-pyrimidin-4-ylpropionamide **588942-68-1P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-nitrophenyl]-N-(2-methylpyrimidin-4-yl)propionamide **588942-71-6P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-nitrophenyl]-N-(2-oxo-1,2-dihydropyrimidin-4-yl)propionamide **588942-76-1P**, 3-Cyclopentyl-2-[4-(methanesulfonyl)-3-nitrophenyl]-N-pyrazin-2-

ylpropionamide **588942-81-8P**, 3-Cyclopentyl-N-(1H-imidazol-2-yl)-2-[4-(methanesulfonyl)-3-nitrophenyl]propionamide **588942-86-3P**, 3-Cyclopentyl-2(R)-(3,4-dichlorophenyl)-N-pyrazin-2-ylpropionamide **588942-91-0P**, N-(5-Bromopyridin-2-yl)-2-(4-chloro-3-nitrophenyl)-3-cyclopentylpropionamide **588942-95-4P**, 3-Cyclopentyl-N-pyrimidin-4-yl-2-(3-trifluoromethylphenyl)propionamide **588943-01-5P**, 3-Cyclopentyl-N-(2-methylpyrimidin-4-yl)-2-(3-trifluoromethylphenyl)propionamide **588943-08-2P**, 3-Cyclopentyl-N-pyrazin-2-yl-2-(3-trifluoromethylphenyl)propionamide **588943-12-8P**, [2-[[3-Cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)propionyl]amino]thiazol-4-yl]acetic acid ethyl ester **588943-17-3P**, 3-Cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)-N-(5-nitropyridin-2-yl)propionamide **588943-23-1P**, N-(5-Cyanopyridin-2-yl)-3-cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)propionamide **588943-31-1P**, 6-[[3-Cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)propionyl]amino]nicotinic acid methyl ester **588943-37-7P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-(4-fluoro-3-trifluoromethylphenyl)propionamide **588943-44-6P**, 3-Cyclopentyl-N-(1H-imidazol-2-yl)-2-[4-(methanesulfonyl)-3-trifluoromethylphenyl]propionamide

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(glucokinase activator; preparation of cycloalkylheteroaryl propionamides as glucokinase activators)

IT **300354-22-7P**, 3-Cyclopentyl-2-(3-nitrophenyl)-N-(thiazol-2-yl)propionamide

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(intermediate, glucokinase activator; preparation of cycloalkylheteroaryl propionamides as glucokinase activators)

IT **300355-17-3P**, 2-[3-Chloro-4-(methylsulfonyl)phenyl]-3-cyclopentyl-N-(thiazol-2-yl)propionamide **300355-48-0P**, N-(5-Benzoyloxypyridin-2-yl)-3-cyclopentyl-2-(3,4-dichlorophenyl)propionamide

**588940-26-5P**, 2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazole-5-carboxylic acid ethyl ester **588940-32-3P**, 2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazole-5-carboxylic acid **588941-27-9P**, 2(R)-[3-Chloro-4-(methylsulfonyl)phenyl]-3-cyclopentyl-N-(2-methylpyrimidin-4-yl)propionamide

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate, preparation of cycloalkylheteroaryl propionamides as glucokinase activators)

IT **300352-91-4**, 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-4-carboxylic acid ethyl ester

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of cycloalkylheteroaryl propionamides as glucokinase activators)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:568272 HCAPLUS

DOCUMENT NUMBER: 139:240091

TITLE: Allosteric activators of glucokinase: Potential role in diabetes therapy

AUTHOR(S): Grimsby, Joseph; Sarabu, Ramakanth; Corbett, Wendy L.; Haynes, Nancy-Ellen; Bizzarro, Fred T.; Coffey, John W.; Guertin, Kevin R.; Hilliard, Darryl W.; Kester, Robert F.; Mahaney, Paige E.; Marcus, Linda; Qi, Lida; Spence, Cheryl L.; Teng, John; Magnuson, Mark A.;

Chu, Chang An; Dvorozniak, Mark T.; Matschinsky, Franz  
 M.; Grippo, Joseph F.  
 CORPORATE SOURCE: Department of Metabolic diseases, Hoffmann-La Roche  
 Inc., Nutley, NJ, 07110, USA  
 SOURCE: Science (Washington, DC, United States) (2003),  
 301(5631), 370-373  
 CODEN: SCIEAS; ISSN: 0036-8075  
 PUBLISHER: American Association for the Advancement of Science  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Glucokinase (GK) plays a key role in whole-body glucose homeostasis by  
 catalyzing the phosphorylation of glucose in cells that express this  
 enzyme, such as pancreatic 3 cells and hepatocytes. We describe a class  
 of antidiabetic agents that act as nonessential, mixed-type GK activators  
 (GKAs) that increase the glucose affinity and maximum velocity (Vmax) of GK.  
 GKAs augment both hepatic glucose metabolism and glucose-induced insulin  
 secretion from isolated rodent pancreatic islets, consistent with the  
 expression and function of GK in both cell types. In several rodent  
 models of type 2 diabetes mellitus, GKAs lowered blood glucose levels,  
 improved the results of glucose tolerance tests, and increased hepatic  
 glucose uptake. These findings may lead to the development of new drug  
 therapies for diabetes.  
 IT 300352-96-9, Ro 28-0450 300353-13-3, Ro 28-1675  
 599164-57-5, Ro 28-1674  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (allosteric activators of glucokinase and potential role in diabetes  
 therapy)  
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2003:516858 HCAPLUS  
 DOCUMENT NUMBER: 139:65384  
 TITLE: Methods for purification and crystal structure of  
 human glucokinase and their use in treatment of type  
 II diabetes  
 INVENTOR(S): Corbett, Wendy Lea; Crowther, Robert Lewis; Dunten,  
 Pete William; Kammlott, R. Ursula; Lukacs, Christine  
 Maria  
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche AG, Switz.  
 SOURCE: Fr. Demande, 90 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.    | KIND | DATE     | APPLICATION NO.  | DATE     |
|---------------|------|----------|------------------|----------|
| FR 2834295    | A1   | 20030704 | FR 2002-16171    | 20021219 |
| US 2003219887 | A1   | 20031127 | US 2002-318308   | 20021212 |
| GB 2385328    | A1   | 20030820 | GB 2002-29456    | 20021218 |
| DE 10259786   | A1   | 20030717 | DE 2002-10259786 | 20021219 |
| JP 2003235551 | A2   | 20030826 | JP 2002-367592   | 20021219 |

PRIORITY APPLN. INFO.: US 2001-341988P P 20011219

AB This invention relates to crystal structure of human glucokinase and  
 methods for culturing these proteins. Methods of using glucokinase for  
 treatment of hyperglycemia in type II diabetes are provided.

IT 300354-06-7 300354-08-9 545357-71-9  
 545357-72-0

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (cocrystrn. of glucokinase with; methods for purification and crystal

structure of human glucokinase and their use in treatment of type II diabetes)

L15 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2002:142705 HCAPLUS  
 DOCUMENT NUMBER: 136:183830  
 TITLE: Preparation of tetrazolylphenylacetamide glucokinase activators for treatment or prophylaxis of type II diabetes  
 INVENTOR(S): Sidduri, Achyutharao  
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.  
 SOURCE: PCT Int. Appl., 115 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND                                                                                                                                                                                                                                                                                                                                                                               | DATE     | APPLICATION NO. | DATE        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-----------------|-------------|
| WO 2002014312          | A1                                                                                                                                                                                                                                                                                                                                                                                 | 20020221 | WO 2001-EP9207  | 20010809    |
| W:                     | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                 |             |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG                                                                                                                                                                                         |          |                 |             |
| US 2002035266          | A1                                                                                                                                                                                                                                                                                                                                                                                 | 20020321 | US 2001-924247  | 20010808    |
| US 6369232             | B2                                                                                                                                                                                                                                                                                                                                                                                 | 20020409 |                 |             |
| AU 2001083998          | A5                                                                                                                                                                                                                                                                                                                                                                                 | 20020225 | AU 2001-83998   | 20010809    |
| EP 1311504             | A1                                                                                                                                                                                                                                                                                                                                                                                 | 20030521 | EP 2001-962926  | 20010809    |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR                                                                                                                                                                                                                                                                             |          |                 |             |
| BR 2001013312          | A                                                                                                                                                                                                                                                                                                                                                                                  | 20030701 | BR 2001-13312   | 20010809    |
| JP 2004506632          | T2                                                                                                                                                                                                                                                                                                                                                                                 | 20040304 | JP 2002-519452  | 20010809    |
| US 2002035267          | A1                                                                                                                                                                                                                                                                                                                                                                                 | 20020321 | US 2001-975713  | 20011011    |
| US 6388088             | B2                                                                                                                                                                                                                                                                                                                                                                                 | 20020514 |                 |             |
| US 2002065275          | A1                                                                                                                                                                                                                                                                                                                                                                                 | 20020530 | US 2002-50508   | 20020116    |
| US 6441180             | B2                                                                                                                                                                                                                                                                                                                                                                                 | 20020827 |                 |             |
| PRIORITY APPLN. INFO.: |                                                                                                                                                                                                                                                                                                                                                                                    |          | US 2000-225494P | P 20000815  |
|                        |                                                                                                                                                                                                                                                                                                                                                                                    |          | US 2001-924247  | A3 20010808 |
|                        |                                                                                                                                                                                                                                                                                                                                                                                    |          | WO 2001-EP9207  | W 20010809  |
|                        |                                                                                                                                                                                                                                                                                                                                                                                    |          | US 2001-975713  | A3 20011011 |

OTHER SOURCE(S): MARPAT 136:183830

AB Tetrazolylphenylacetamides, 4-R1-3-R2C6H3ZC(O)NHR4 (I; e.g. N-(5-bromopyridin-2-yl)-3-cyclopentyl-2-[3-chloro-4-(5-methyltetrazol-1-yl)phenyl]propionamide (1); Z is (E)-R3(CH2)nCH:C< or R3(CH2)nCH2C\*H<; the asterisk denotes an asym. C; 1 of R1 or R2 is 5-R5-1H-tetrazol-1-yl and the other is H, halogen, lower alkyl sulfonyl, perfluoro lower alkyl, cyano, or nitro; R3 is cycloalkyl; R4 is -C(O)-NHR6 or a five- or six-membered heteroarom. ring connected by a ring C atom to the amide group; R5 is lower alkyl, perfluoro lower alkyl; R6 = H, lower alkyl; n = 0, 1), are active as glucokinase activators, and are able to increase insulin secretion, which makes them useful for treating type II diabetes. In the in vitro glucokinase assay, all I described in the synthesis examples had an  $SC_{1.5} \leq 30 \mu M$ . Nine I (e.g. 1) have excellent glucokinase activating activity in vivo when administered orally in accordance with the procedure described. 22 Example preps. are given. For example, a solution of PPh3 (0.9 mmol) in CH2Cl2 (6 mL) was cooled to 0° and then treated with N-bromosuccinimide (0.9 mmol). The

reaction mixture was stirred at 0° for 30 min and then treated with 2-[3-chloro-4-(5-methyltetrazol-1-yl)phenyl]-3-cyclopentylpropionic acid (2; 0.45 mmol). The clear solution was stirred for 15 min at 0° and then allowed to warm to 25° where it was stirred for 2 h. The reaction mixture was then treated with 2-amino-5-bromopyridine (1.35 mmol), and the resulting suspension was stirred for 2 d at 25°. After workup, 42% of 1 was obtained as an amorphous white solid. To prepare intermediate 2, activated Zn dust suspension (10 mmol) in THF was treated with trimethylsilyl chloride (1 mmol), and the suspension was stirred for 15 min at 25°. The reaction mixture was then treated dropwise with a solution of (E)-3-cyclopentyl-2-iodoacrylic acid Me ester (preparation given; 4.5 mmol) in dry THF (2 mL) over 3 min. The reaction mixture was then stirred at 40-45° for 1 h and then stirred overnight at 25°. The reaction mixture was then diluted with dry THF (3 mL), and the stirring was stopped to allow the excess Zn dust to settle down (.apprx.2 h). In a sep. reaction flask, bis(dibenzylideneacetone)palladium(0) (0.1 mmol) and PPh<sub>3</sub> (0.4 mmol) in dry THF (4 mL) was stirred at 25° under Ar for 10 min and then treated with 1-(2-chloro-4-iodophenyl)-5-methyl-1H-tetrazole (preparation given; 2.73 mmol) and the freshly prepared Zn compound in THF. The resulting brick red solution was stirred at 25° over the weekend and then heated at 40-45° for 4 h. Workup gave 91% (E)-2-[3-chloro-4-(5-methyltetrazol-1-yl)phenyl]-3-cyclopentylacrylic acid Me ester (3). A solution of Ni(II) chloride hexahydrate (0.8 mmol) and 3 (2.0 mmol) in MeOH (15 mL) was cooled to 0° and then treated with NaBH<sub>4</sub> (12 mmol) in five portions. After the addition, the black reaction mixture was stirred for 15 min at 0° and then allowed to warm to 25° where it was stirred for 2 d. Workup gave 99% racemic 2-[3-chloro-4-(5-methyltetrazol-1-yl)phenyl]-3-cyclopentylpropionic acid Me ester (4). A solution of 4 (2.0 mmol) in EtOH (20 mL) was treated with a 1 N aqueous NaOH solution (4 mL). The solution was heated at 45-50° for 3 h, at which time, thin layer chromatog. anal. of the reaction mixture indicated the absence of starting material. Workup gave 90% 2.

IT **400610-22-2P**, 2-[4-(5-Methyl-1-tetrazolyl)-3-fluorophenyl]-3-cyclopentyl-N-thiazol-2-ylpropionamide **400610-28-8P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-[3-fluoro-4-(5-methyltetrazol-1-yl)phenyl]propionamide **400610-29-9P**, 2-[3-Chloro-4-(5-methyltetrazol-1-yl)phenyl]-3-cyclopentyl-N-thiazol-2-ylpropionamide **400610-34-6P**, 2-[3-Chloro-4-(5-methyltetrazol-1-yl)phenyl]-3-cyclohexyl-N-thiazol-2-ylpropionamide **400610-38-0P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-[3-chloro-4-(5-methyltetrazol-1-yl)phenyl]propionamide **400610-39-1P**, 2-[3-Chloro-4-(5-trifluoromethyltetrazol-1-yl)phenyl]-3-cyclohexyl-N-thiazol-2-ylpropionamide **400610-44-8P**, 3-Cyclopentyl-2-[4-(5-methyltetrazol-1-yl)-3-trifluoromethylphenyl]-N-thiazol-2-ylpropionamide **400610-49-3P**, N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-[4-(5-methyltetrazol-1-yl)-3-trifluoromethylphenyl]propionamide **400610-50-6P**, 3-Cyclopentyl-2-[4-methanesulfonyl-3-(5-methyltetrazol-1-yl)phenyl]-N-thiazol-2-ylpropionamide  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of tetrazolylphenylacetamide glucokinase activators for treatment or prophylaxis of type II diabetes)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:833296 HCAPLUS

DOCUMENT NUMBER: 135:357916

TITLE: Para-amino substituted phenylamide glucokinase activators

INVENTOR(S): Bizzarro, Fred Thomas; Haynes, Nancy-Ellen; Sarabu, Ramakanth

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-g., Switz.  
 SOURCE: PCT Int. Appl., 49 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                                                                                                                                                                                                                                                                                                                            | KIND | DATE     | APPLICATION NO. | DATE        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|-------------|
| WO 2001085707                                                                                                                                                                                                                                                                                                                                         | A1   | 20011115 | WO 2001-EP4859  | 20010430    |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |             |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                                                                                                                                                            |      |          |                 |             |
| BR 2001010703                                                                                                                                                                                                                                                                                                                                         | A    | 20030128 | BR 2001-10703   | 20010430    |
| EP 1283830                                                                                                                                                                                                                                                                                                                                            | A1   | 20030219 | EP 2001-943302  | 20010430    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR                                                                                                                                                                                                                                             |      |          |                 |             |
| JP 2003532719                                                                                                                                                                                                                                                                                                                                         | T2   | 20031105 | JP 2001-582308  | 20010430    |
| US 2001051731                                                                                                                                                                                                                                                                                                                                         | A1   | 20011213 | US 2001-846820  | 20010501    |
| US 6489485                                                                                                                                                                                                                                                                                                                                            | B2   | 20021203 |                 |             |
| US 2003060625                                                                                                                                                                                                                                                                                                                                         | A1   | 20030327 | US 2002-255440  | 20020926    |
| PRIORITY APPLN. INFO.:                                                                                                                                                                                                                                                                                                                                |      |          |                 |             |
|                                                                                                                                                                                                                                                                                                                                                       |      |          | US 2000-202389P | P 20000508  |
|                                                                                                                                                                                                                                                                                                                                                       |      |          | WO 2001-EP4859  | W 20010430  |
|                                                                                                                                                                                                                                                                                                                                                       |      |          | US 2001-846820  | A3 20010501 |

OTHER SOURCE(S): MARPAT 135:357916

AB Para-alkyl, aryl, cycloheteroalkyl or heteroaryl [carbonyl or sulfonyl] amino substituted Ph amides active as glucokinase activators to increase insulin secretion which makes them useful for treating type II diabetes were studied. Seventeen title compds. were prepared via standard methods and their glucokinase activation activities were measured. All compds. had an SC1.5 equal to or less than 30  $\mu$ M. Among the compds. prepared were 95% N-{4-[2-cyclopentyl-1-(2-thiazolylcarbonyl)ethyl]phenyl}benzamide and 72% Me 6-(3-cyclopentyl-2-{4-[(3-pyridinecarbonyl)amino]phenyl}propionylamino) nicotinate.

IT 372938-01-7P 372938-02-8P 372938-03-9P  
 372938-04-0P 372938-05-1P 372938-06-2P  
 372938-07-3P 372938-08-4P 372938-09-5P  
 372938-10-8P 372938-11-9P 372938-12-0P  
 372938-13-1P 372938-14-2P 372938-15-3P  
 372938-16-4P 372938-17-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation and use of antidiabetic p-amino substituted phenylamide glucokinase activators)

IT 300353-01-9P 300353-24-6P 300353-44-0P  
 300354-34-1P 300354-35-2P 300354-36-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and use of antidiabetic p-amino substituted phenylamide glucokinase activators)

IT 372938-22-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and use of antidiabetic p-amino substituted phenylamide glucokinase activators)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS



## RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:833295 HCAPLUS  
 DOCUMENT NUMBER: 135:357773  
 TITLE: Preparation of substituted phenylacetamides and their use as glucokinase activators  
 INVENTOR(S): Corbett, Wendy Lea; Haynes, Nancy-Ellen; Sarabu, Ramakanth  
 PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.  
 SOURCE: PCT Int. Appl., 119 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.                                                                                                                                                                                                                                                                                                                                            | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|-----------------|----------|
| WO 2001085706                                                                                                                                                                                                                                                                                                                                         | A1   | 20011115 | WO 2001-EP4777  | 20010427 |
| W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |          |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                                                                                                                                                            |      |          |                 |          |
| BR 2001010704                                                                                                                                                                                                                                                                                                                                         | A    | 20030128 | BR 2001-10704   | 20010427 |
| EP 1282611                                                                                                                                                                                                                                                                                                                                            | A1   | 20030212 | EP 2001-933901  | 20010427 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR                                                                                                                                                                                                                                             |      |          |                 |          |
| JP 2003532718                                                                                                                                                                                                                                                                                                                                         | T2   | 20031105 | JP 2001-582307  | 20010427 |
| US 2002002190                                                                                                                                                                                                                                                                                                                                         | A1   | 20020103 | US 2001-846821  | 20010501 |
| US 6384220                                                                                                                                                                                                                                                                                                                                            | B2   | 20020507 |                 |          |

PRIORITY APPLN. INFO.: US 2000-202387P P 20000508  
 WO 2001-EP4777 W 20010427

OTHER SOURCE(S): MARPAT 135:357773

AB The title compds. 4-R[(CH<sub>2</sub>)<sub>y</sub>X]zC<sub>6</sub>H<sub>4</sub>CH(CH<sub>2</sub>R<sub>1</sub>)CONHR<sub>2</sub> [X = O, SO<sub>2</sub>; R is a ring; R<sub>1</sub> is cycloalkyl; y and z are 0 or 1; R<sub>2</sub> is -CONHR<sub>3</sub> or a heteroarom. ring having a ring nitrogen atom adjacent to the connecting ring carbon atom], active as glucokinase activators to increase insulin secretion, were prepared E.g., 2-biphenyl-4-yl-3-cyclopentyl-N-thiazol-2-ylpropionamide was prepared by reaction of 4-biphenylacetic acid with iodomethylcyclopentane, followed by treatment with 2-aminothiazole.

IT 372509-12-1P 372509-13-2P 372509-16-5P  
 372509-22-3P 372509-23-4P 372509-45-0P  
 372509-49-4P 372509-55-2P 372509-57-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of substituted phenylacetamides and their use as glucokinase activators)

IT 372509-01-8P 372509-02-9P 372509-03-0P  
 372509-04-1P 372509-05-2P 372509-06-3P  
 372509-07-4P 372509-08-5P 372509-09-6P  
 372509-10-9P 372509-11-0P 372509-14-3P  
 372509-15-4P 372509-18-7P 372509-19-8P  
 372509-20-1P 372509-21-2P 372509-24-5P  
 372509-25-6P 372509-26-7P 372509-27-8P  
 372509-28-9P 372509-29-0P 372509-30-3P

372509-31-4P 372509-32-5P 372509-33-6P  
 372509-42-7P 372509-43-8P 372509-44-9P  
 372509-46-1P 372509-48-3P 372509-50-7P  
 372509-51-8P 372509-52-9P 372509-53-0P  
 372509-54-1P 372509-56-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of substituted phenylacetamides and their use as glucokinase activators)

IT 300352-95-8P 372509-74-5P 372509-75-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of substituted phenylacetamides and their use as glucokinase activators)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:816652 HCAPLUS

DOCUMENT NUMBER: 135:357915

TITLE: Preparation of alkynylphenyl N-thiazolepropionamides as glucokinase activators for treatment of type II diabetes

INVENTOR(S): Mahaney, Paige Erin

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

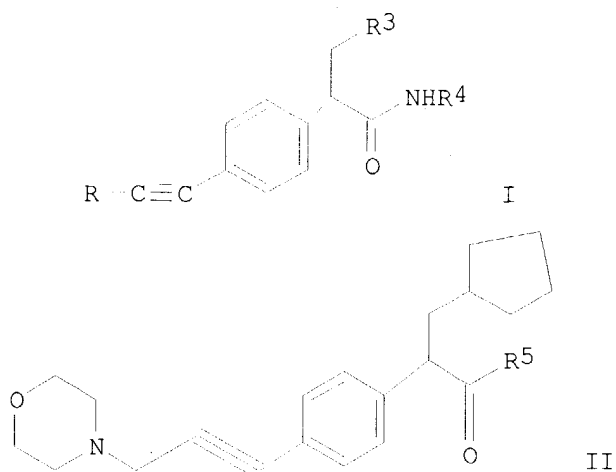
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.             | KIND                                                                                                                                                                                                                                                                                                                                               | DATE     | APPLICATION NO.   | DATE     |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------|----------|
| WO 2001083465          | A2                                                                                                                                                                                                                                                                                                                                                 | 20011108 | WO 2001-EP4654    | 20010425 |
| WO 2001083465          | A3                                                                                                                                                                                                                                                                                                                                                 | 20020516 |                   |          |
| W:                     | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                   |          |
| RW:                    | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                                                                                                                                                             |          |                   |          |
| US 2001053851          | A1                                                                                                                                                                                                                                                                                                                                                 | 20011220 | US 2001-841983    | 20010425 |
| US 6388071             | B2                                                                                                                                                                                                                                                                                                                                                 | 20020514 |                   |          |
| EP 1282612             | A2                                                                                                                                                                                                                                                                                                                                                 | 20030212 | EP 2001-949294    | 20010425 |
| R:                     | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR                                                                                                                                                                                                                                             |          |                   |          |
| BR 2001010573          | A                                                                                                                                                                                                                                                                                                                                                  | 20030401 | BR 2001-10573     | 20010425 |
| JP 2003531898          | T2                                                                                                                                                                                                                                                                                                                                                 | 20031028 | JP 2001-580894    | 20010425 |
| PRIORITY APPLN. INFO.: |                                                                                                                                                                                                                                                                                                                                                    |          | US 2000-201546P P | 20000503 |
|                        |                                                                                                                                                                                                                                                                                                                                                    |          | WO 2001-EP4654 W  | 20010425 |

OTHER SOURCE(S): MARPAT 135:357915

GI



AB P-alkynylphenyl heteroarom. amides I (R = H, (OH)lower alkyl, alkoxy, R1R2N(CH2)n-, unsubstituted or OH-substituted cycloalkyl or S-, O-, or N-heterocycle; R3 = C3-7 cycloalkyl; R4 = (un)substituted S-, O-, or N-heteroarom. ring connected by the ring carbon to NH; R1 and R2 independently are H or lower alkyl or together with the N atom to which they are attached form a 5- or 6-membered heteroarom. ring with 1-3 heteroatoms of S, O, or N) and their pharmaceutically acceptable salts were prepared for use as glucokinase activators to increase insulin secretion and are therefore useful for treating type II diabetes. Thus the glucokinase activator II (R5 = NH(thiazol-2-yl)) was prepared from (4-iodophenyl)acetic acid and iodomethylcyclopentane, then coupled with 4-prop-2-ynylmorpholine giving the intermediate II (R5 = OH) which reacted further with 2-aminothiazole to yield activator II in 71%. In vitro glucokinase activity was assayed and all compds. of formula I had an SC1.5 less than or equal to 30  $\mu$ M.

IT 372080-87-0P 372080-90-5P 372080-93-8P  
 372080-94-9P 372080-97-2P 372081-00-0P  
 372081-03-3P 372081-06-6P 372081-09-9P  
 372081-12-4P 372081-15-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of N-thiazole-2-ylpropionamides as antidiabetic agents)

L15 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:137023 HCAPLUS

DOCUMENT NUMBER: 134:178552

TITLE: 3(5)-Acylaminopyrazole derivatives, process for their preparation and their use as antitumor agents

INVENTOR(S): Pevarello, Paolo; Orsini, Paolo; Traquandi, Gabriella; Varasi, Mario; Fritzen, Edward L.; Warpehoski, Martha A.; Pierce, Betsy S.; Brasca, Maria Gabriella

PATENT ASSIGNEE(S): Pharmacia & Upjohn S.p.A., Italy; Pharmacia & Upjohn Company

SOURCE: PCT Int. Appl., 123 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

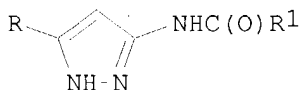
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

|                                                                                                                                                                                                                                                                                                                                                       |    |          |                   |             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------|-------------------|-------------|
| WO 2001012189                                                                                                                                                                                                                                                                                                                                         | A1 | 20010222 | WO 2000-US6699    | 20000505    |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |    |          |                   |             |
| RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                                                                                                                                                                    |    |          |                   |             |
| EP 1202733                                                                                                                                                                                                                                                                                                                                            | A1 | 20020508 | EP 2000-931906    | 20000505    |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL                                                                                                                                                                                                                                                 |    |          |                   |             |
| BR 2000013143                                                                                                                                                                                                                                                                                                                                         | A  | 20020611 | BR 2000-13143     | 20000505    |
| JP 2003507329                                                                                                                                                                                                                                                                                                                                         | T2 | 20030225 | JP 2001-516535    | 20000505    |
| EE 200200065                                                                                                                                                                                                                                                                                                                                          | A  | 20030415 | EE 2002-65        | 20000505    |
| NZ 517237                                                                                                                                                                                                                                                                                                                                             | A  | 20040227 | NZ 2000-517237    | 20000505    |
| US 6218418                                                                                                                                                                                                                                                                                                                                            | B1 | 20010417 | US 2000-667603    | 20000922    |
| NO 2002000684                                                                                                                                                                                                                                                                                                                                         | A  | 20020403 | NO 2002-684       | 20020211    |
| HR 2002000128                                                                                                                                                                                                                                                                                                                                         | A1 | 20030430 | HR 2002-128       | 20020212    |
| ZA 2002001511                                                                                                                                                                                                                                                                                                                                         | A  | 20030311 | ZA 2002-1511      | 20020222    |
| BG 106480                                                                                                                                                                                                                                                                                                                                             | A  | 20020930 | BG 2002-106480    | 20020305    |
| PRIORITY APPLN. INFO.:                                                                                                                                                                                                                                                                                                                                |    |          | US 1999-372831    | A 19990812  |
|                                                                                                                                                                                                                                                                                                                                                       |    |          | US 2000-560400    | A1 20000428 |
|                                                                                                                                                                                                                                                                                                                                                       |    |          | WO 2000-US6699    | W 20000505  |
| OTHER SOURCE(S):                                                                                                                                                                                                                                                                                                                                      |    |          | MARPAT 134:178552 |             |
| GI                                                                                                                                                                                                                                                                                                                                                    |    |          |                   |             |



AB Compds. which are 3-acylaminopyrazole derivs. (I; e.g. N-(5-cyclopropyl-1H-pyrazol-3-yl)-2,2-diphenylacetamide) wherein R is C3-C6 cycloalkyl group optionally substituted by a straight or branched C1-C6 alkyl or arylalkyl group; R1 is a straight or branched C1-C6 alkyl, C2-C4 alkenyl, cycloalkyl, cycloalkenyl, heterocyclyl, aryl, arylalkyl, arylcarbonyl, aryloxyalkyl or arylalkenyl group, each of which may be optionally further substituted as indicated in the description; or a pharmaceutically acceptable salt thereof, processes for their preparation and their therapeutic uses. The compds. are useful for the treatment of cancer, cell proliferative disorders, Alzheimer's disease, viral infections, auto-immune diseases or neurodegenerative diseases, but no quant. test results are presented. The cancer is selected from carcinoma, squamous cell carcinoma, hematopoietic tumors of myeloid or lymphoid lineage, tumors of mesenchymal origin, tumors of the central and peripheral nervous system, melanoma, seminoma, teratocarcinoma, osteosarcoma, xeroderma pigmentosum, keratoacanthoma, thyroid follicular cancer and Kaposi's sarcoma. The cell proliferative disorder is selected from benign prostate hyperplasia, familial adenomatosis polyposis, neuro-fibromatosis, psoriasis, vascular smooth cell proliferation associated with atherosclerosis, pulmonary fibrosis, arthritis glomerulonephritis and post-surgical stenosis and restenosis. The method of treatment provides tumor angiogenesis and metastasis inhibition, cell cycle inhibition or cdk/cyclin dependent inhibition, and treatment or prevention of radiotherapy-induced or chemotherapy-induced alopecia. A process for preparing the 3-aminopyrazole derivative or the pharmaceutically acceptable salt thereof, comprising: (a) reacting RCO<sub>2</sub>R<sub>2</sub> (R<sub>2</sub> = alkyl), with MeCN in the presence of a basic agent, to obtain RC(O)CH<sub>2</sub>CN; (b) reacting RC(O)CH<sub>2</sub>CN

with hydrazine hydrate to obtain a 3-amino-5-R-1H-pyrazole; (c) oxidizing the 3-amino-5-R-1H-pyrazole to obtain the nitro analog; (d) reacting the nitro compound with tert-butoxycarbonyl anhydride (Boc2O) to obtain the N-Boc derivative; (e) reducing this Boc derivative to obtain the amino analog; (f) reacting this amino compound with R1C(O)X (X = OH or a suitable leaving group) to obtain the N1-Boc-protected I; and (g) hydrolyzing this intermediate in an acidic medium to obtain I. Other methods of preparation are also claimed.

IT **326825-70-1P**, N-(5-Cyclopropyl-1H-pyrazol-3-yl)-2-[4-(1-oxo-1,3-dihydro-2H-isoindol-2-yl)phenyl]hexanamide **326825-77-8P**, N-(5-Cyclopropyl-1H-pyrazol-3-yl)-2-[4-(1-oxo-1,3-dihydro-2H-isoindol-2-yl)phenyl]pentanamide  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (acylaminopyrazole derivs., process for preparation and use as antitumor agents)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:707150 HCAPLUS

DOCUMENT NUMBER: 133:281775

TITLE: Preparation of arylcycloalkylpropionamides as glucokinase activators.

INVENTOR(S): Bizzarro, Fred Thomas; Corbett, Wendy Lea; Focella, Antonino; Grippo, Joseph Francis; Haynes, Nancy-ellen; Holland, George William; Kester, Robert Francis; Mahaney, Paige E.; Sarabu, Ramakanth

PATENT ASSIGNEE(S): F. Hoffmann-La Roche A.-G., Switz.

SOURCE: PCT Int. Appl., 353 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

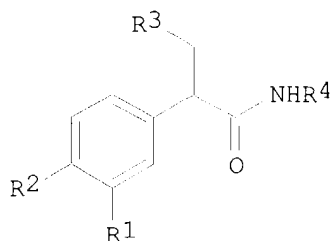
| PATENT NO.    | KIND                                                                                                                                                                                                                                                                                                                                           | DATE     | APPLICATION NO.   | DATE     |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------------------|----------|
| WO 2000058293 | A2                                                                                                                                                                                                                                                                                                                                             | 20001005 | WO 2000-EP2450    | 20000320 |
| WO 2000058293 | A3                                                                                                                                                                                                                                                                                                                                             | 20010125 |                   |          |
| W:            | AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |          |                   |          |
| RW:           | GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG                                                                                                                                                                 |          |                   |          |
| NZ 514038     | A                                                                                                                                                                                                                                                                                                                                              | 20010928 | NZ 2000-514038    | 20000320 |
| BR 2000009486 | A                                                                                                                                                                                                                                                                                                                                              | 20020102 | BR 2000-9486      | 20000320 |
| EP 1169312    | A2                                                                                                                                                                                                                                                                                                                                             | 20020109 | EP 2000-918816    | 20000320 |
| R:            | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO                                                                                                                                                                                                                                                         |          |                   |          |
| TR 200102805  | T2                                                                                                                                                                                                                                                                                                                                             | 20020422 | TR 2001-200102805 | 20000320 |
| JP 2002540196 | T2                                                                                                                                                                                                                                                                                                                                             | 20021126 | JP 2000-607996    | 20000320 |
| AU 767830     | B2                                                                                                                                                                                                                                                                                                                                             | 20031127 | AU 2000-39630     | 20000320 |
| AU 2000039630 | A5                                                                                                                                                                                                                                                                                                                                             | 20001016 |                   |          |
| US 6528543    | B1                                                                                                                                                                                                                                                                                                                                             | 20030304 | US 2000-532506    | 20000321 |
| HR 2001000688 | A1                                                                                                                                                                                                                                                                                                                                             | 20030630 | HR 2001-688       | 20010919 |
| ZA 2001007833 | A                                                                                                                                                                                                                                                                                                                                              | 20021223 | ZA 2001-7833      | 20010921 |
| NO 2001004671 | A                                                                                                                                                                                                                                                                                                                                              | 20010926 | NO 2001-4671      | 20010926 |

PRIORITY APPLN. INFO.:

US 1999-126707P P 19990329  
 US 1999-165944P P 19991117  
 US 1999-165948P P 19991117  
 WO 2000-EP2450 W 20000320

OTHER SOURCE(S): MARPAT 133:281775

GI



I

AB Title compds. [I; R1, R2 = H, halo, amino, hydroxyamino, NO<sub>2</sub>, cyano, sulfonamido, perfluoroalkyl, alkylthio, alkylsulfonyl, alkylsulfinyl, etc.; R3 = alkyl, cycloalkyl; R4 = CONHR40, (substituted) 5-6 membered heteroaryl; R40 = H, alkyl, alkenyl, hydroxyalkyl, haloalkyl, etc.], were prepared for treatment of type II diabetes. Thus, 3-cyclopentyl-2-(3,4-dichlorophenyl)propionic acid (preparation given), benzotriazol-1-yloxytris(dimethylamino)phosphonium hexafluorophosphate, and 2-aminothiazole in CH<sub>2</sub>Cl<sub>2</sub> was treated with Et<sub>3</sub>N followed by 14 h stirring to give 3-cyclopentyl-2-(3,4-dichlorophenyl)-N-thiazol-2-ylpropionamide. I activated glucokinase in vitro with SC1.5 ≤ 30 μM.

IT 300352-96-9P 300353-06-4P 300353-14-4P  
 300353-44-0P 300354-22-7P 300354-34-1P  
 300356-30-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of arylcycloalkylpropionamides as glucokinase activators)

IT 300352-85-6P 300352-86-7P 300352-87-8P  
 300352-88-9P 300352-89-0P 300352-90-3P  
 300352-91-4P 300352-92-5P 300352-93-6P  
 300352-94-7P 300352-95-8P 300352-97-0P  
 300352-98-1P 300352-99-2P 300353-00-8P  
 300353-01-9P 300353-02-0P 300353-03-1P  
 300353-04-2P 300353-05-3P 300353-07-5P  
 300353-08-6P 300353-09-7P 300353-10-0P  
 300353-11-1P 300353-12-2P 300353-13-3P  
 300353-15-5P 300353-16-6P 300353-17-7P  
 300353-18-8P 300353-19-9P 300353-20-2P  
 300353-21-3P 300353-22-4P 300353-23-5P  
 300353-24-6P 300353-25-7P 300353-26-8P  
 300353-27-9P 300353-28-0P 300353-29-1P  
 300353-30-4P 300353-31-5P 300353-32-6P  
 300353-33-7P 300353-34-8P 300353-35-9P  
 300353-36-0P 300353-37-1P 300353-38-2P  
 300353-39-3P 300353-40-6P 300353-42-8P  
 300353-45-1P 300353-46-2P 300353-47-3P  
 300353-48-4P 300353-49-5P 300353-50-8P  
 300353-51-9P 300353-52-0P 300353-53-1P  
 300353-54-2P 300353-55-3P 300353-56-4P  
 300353-57-5P 300353-58-6P 300353-59-7P

300353-60-0P 300353-61-1P 300353-62-2P  
 300353-63-3P 300353-64-4P 300353-65-5P  
 300353-66-6P 300353-67-7P 300353-68-8P  
 300353-69-9P 300353-70-2P 300353-71-3P  
 300353-72-4P 300353-73-5P 300353-74-6P  
 300353-75-7P 300353-76-8P 300353-77-9P  
 300353-78-0P 300353-79-1P 300353-80-4P  
 300353-81-5P 300353-82-6P 300353-83-7P  
 300353-84-8P 300353-85-9P 300353-86-0P  
 300353-87-1P 300353-88-2P 300353-89-3P  
 300353-90-6P 300353-91-7P 300353-92-8P  
 300353-93-9P 300353-94-0P 300353-95-1P  
 300353-96-2P 300353-97-3P 300353-98-4P  
 300353-99-5P 300354-00-1P 300354-01-2P  
 300354-02-3P 300354-03-4P 300354-04-5P  
 300354-05-6P 300354-06-7P 300354-07-8P  
 300354-08-9P 300354-09-0P 300354-10-3P  
 300354-11-4P 300354-12-5P 300354-13-6P  
 300354-14-7P 300354-15-8P 300354-16-9P  
 300354-17-0P 300354-18-1P 300354-19-2P  
 300354-20-5P 300354-21-6P 300354-23-8P  
 300354-24-9P 300354-25-0P 300354-26-1P  
 300354-27-2P 300354-28-3P 300354-29-4P  
 300354-30-7P 300354-31-8P 300354-32-9P  
 300354-33-0P 300354-35-2P 300354-36-3P  
 300354-37-4P 300355-31-1P 300355-32-2P  
 300355-33-3P 300355-35-5P 300355-36-6P  
 300355-37-7P 300355-38-8P 300355-39-9P  
 300355-40-2P 300355-41-3P 300355-42-4P  
 300355-43-5P 300355-44-6P 300355-45-7P  
 300355-46-8P 300355-47-9P 300355-49-1P  
 300355-90-2P 300355-91-3P 300355-92-4P  
 300356-01-8P 300356-02-9P 300356-70-1P  
 300356-87-0P 300363-04-6P 300363-05-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylcycloalkylpropionamides as glucokinase activators)

IT 300355-17-3P 300355-48-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of arylcycloalkylpropionamides as glucokinase activators)

=>

=> fil reg

FILE 'REGISTRY' ENTERED AT 10:55:17 ON 08 JUN 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 JUN 2004 HIGHEST RN 690625-61-7  
 DICTIONARY FILE UPDATES: 7 JUN 2004 HIGHEST RN 690625-61-7

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

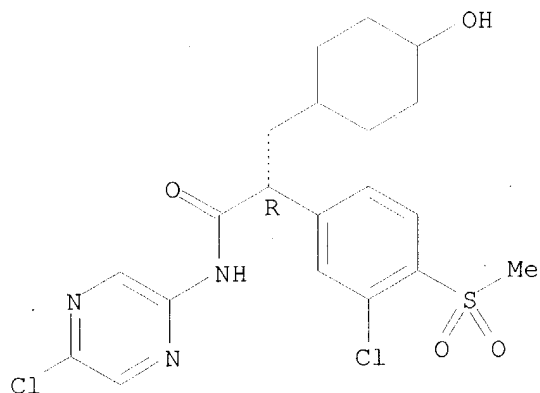
```
=>
=>

=> => s l11 not l14
L16      384 L11 NOT L14

=> d ide can l16 1 20 50 70 100 120 150 170 200 220 250 270 300 320 350 370 384

L16 ANSWER 1 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN
RN 625826-90-6 REGISTRY
CN Benzeneacetamide, 3-chloro-N-(5-chloropyrazinyl)- $\alpha$ -[(4-hydroxycyclohexyl)methyl]-4-(methylsulfonyl)-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H23 Cl2 N3 O4 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL
DT.CA CAplus document type: Patent
RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
```

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

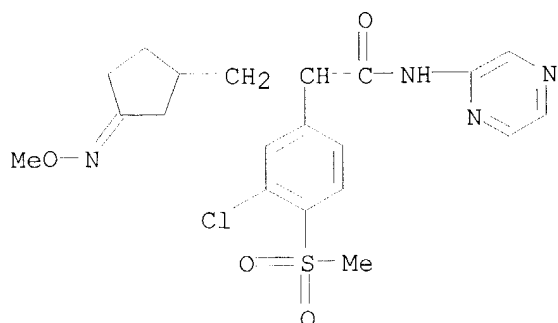
```
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
```

REFERENCE 1: 139:395954

```
L16 ANSWER 20 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN
RN 625114-49-0 REGISTRY
CN Benzeneacetamide, 3-chloro- $\alpha$ -[[3-(methoxyimino)cyclopentyl]methyl]-4-(methylsulfonyl)-N-pyrazinyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-[3-Chloro-4-(methanesulfonyl)phenyl]-3-[3-(methoxyimino)cyclopentyl]-N-(pyrazin-2-yl)propionamide
FS 3D CONCORD
MF C20 H23 Cl N4 O4 S
SR CA
```



LC STN Files: CA, CAPLUS, USPATFULL  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:395954

L16 ANSWER 50 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 625112-91-6 REGISTRY

CN Benzeneacetamide, 3-chloro-N-(5-chloropyrazinyl)-4-(methanesulfonyl)-  
 $\alpha$ -[(4-oxocyclohexyl)methyl]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-(R)-[3-Chloro-4-(methanesulfonyl)phenyl]-N-(5-chloropyrazin-2-yl)-3-(4-oxocyclohexyl)propionamide

FS STEREOSEARCH

MF C20 H21 Cl2 N3 O4 S

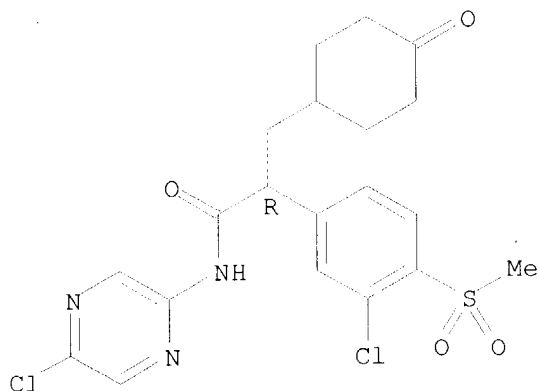
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry.



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:395954

L16 ANSWER 70 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 588942-33-0 REGISTRY

CN Benzeneacetamide,  $\alpha$ -(cyclopentylmethyl)-4-(methylsulfonyl)-N-4-pyrimidinyl-3-(trifluoromethyl)-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 3-Cyclopentyl-2(R)-[4-(methanesulfonyl)-3-trifluoromethylphenyl]-N-pyrimidin-4-ylpropionamide

FS STEREOSEARCH

MF C20 H22 F3 N3 O3 S

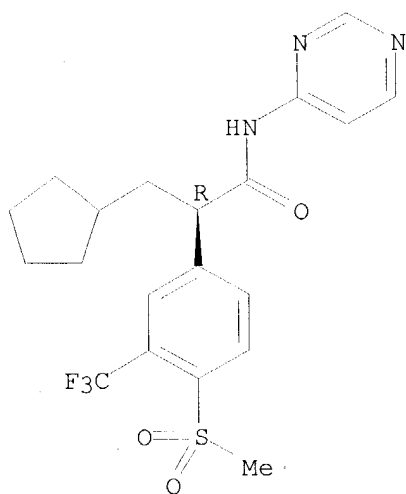
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

Absolute stereochemistry. Rotation (-).



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

L16 ANSWER 100 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 588940-38-9 REGISTRY

CN Benzeneacetamide,  $\alpha$ -(cyclopentylmethyl)-3-fluoro-4-(methylsulfonyl)-N-2-thiazolyl- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 3-Cyclopentyl-2-[3-fluoro-4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide

FS 3D CONCORD

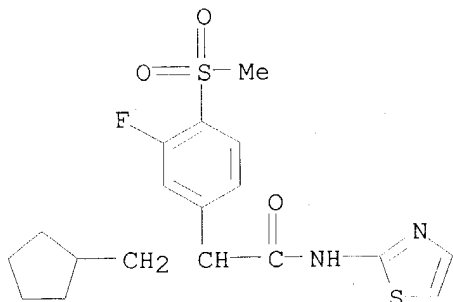
MF C18 H21 F N2 O3 S2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

DT.CA CAPLUS document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

L16 ANSWER 120 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 400610-38-0 REGISTRY

CN Benzeneacetamide, N-(5-bromo-2-pyridinyl)-3-chloro- $\alpha$ -(cyclopentylmethyl)-4-(5-methyl-1H-tetrazol-1-yl)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN N-(5-Bromopyridin-2-yl)-3-cyclopentyl-2-[3-chloro-4-(5-methyltetrazol-1-yl)phenyl]propionamide

FS 3D CONCORD

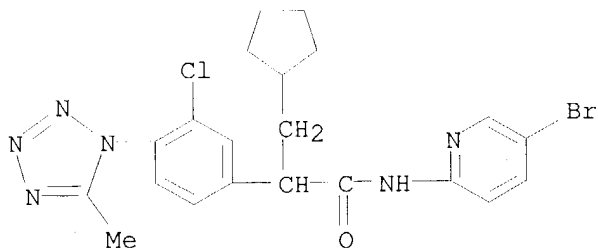
MF C21 H22 Br Cl N6 O

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA CAPLUS document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



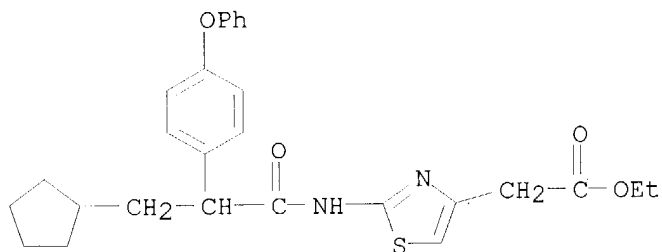
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 136:183830

L16 ANSWER 150 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 372509-52-9 REGISTRY  
 CN 4-Thiazoleacetic acid, 2-[[3-cyclopentyl-1-oxo-2-(4-phenoxyphenyl)propyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C27 H30 N2 O4 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL  
 DT.CA CAplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

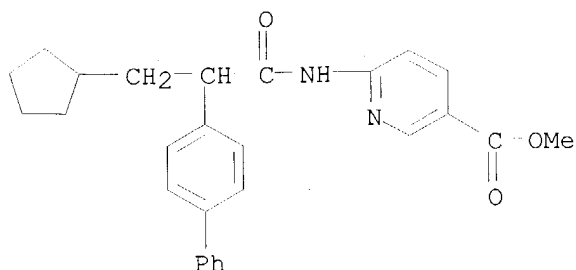


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:357773

L16 ANSWER 170 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 372509-23-4 REGISTRY  
 CN 3-Pyridinecarboxylic acid, 6-[(2-[1,1'-biphenyl]-4-yl-3-cyclopentyl-1-oxopropyl)amino]-, methyl ester (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C27 H28 N2 O3  
 SR CA  
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL  
 DT.CA CAplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

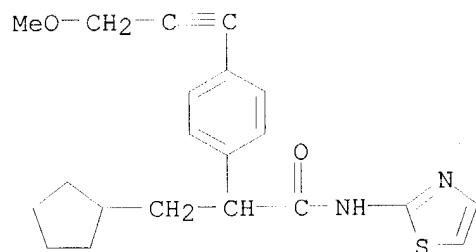


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:357773

L16 ANSWER 200 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 372080-93-8 REGISTRY  
 CN Benzeneacetamide,  $\alpha$ -(cyclopentylmethyl)-4-(3-methoxy-1-propynyl)-N-2-thiazolyl- (9CI) (CA INDEX NAME)  
 FS 3D CONCORD  
 MF C21 H24 N2 O2 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

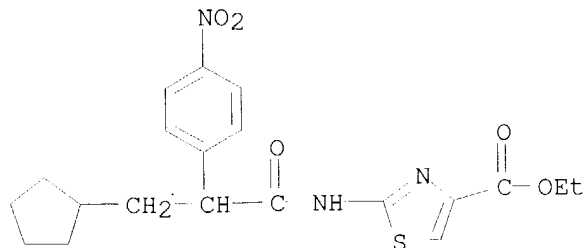


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 135:357915

L16 ANSWER 220 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 300355-44-6 REGISTRY  
 CN 4-Thiazolecarboxylic acid, 2-[[3-cyclopentyl-2-(4-nitrophenyl)-1-oxopropyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 2-[[3-Cyclopentyl-2-(4-nitrophenyl)propionyl]amino]thiazole-4-carboxylic acid ethyl ester  
 FS 3D CONCORD  
 MF C20 H23 N3 O5 S  
 SR CA  
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

L16 ANSWER 250 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 300354-21-6 REGISTRY

CN Benzeneacetamide,  $\alpha$ -(cyclohexylmethyl)-4-(methylsulfonyl)-N-2-thiazolyl- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 3-Cyclohexyl-2-[4-(methanesulfonyl)phenyl]-N-(thiazol-2-yl)propionamide

FS 3D CONCORD

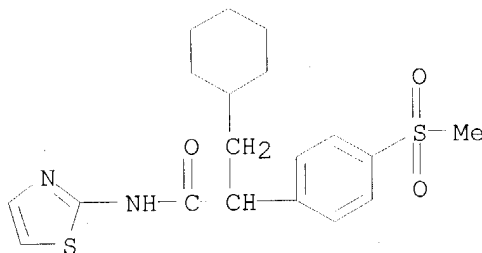
MF C19 H24 N2 O3 S2

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

L16 ANSWER 270 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 300354-01-2 REGISTRY

CN Benzeneacetamide,  $\alpha$ -(cyclopentylmethyl)-N-2-thiazolyl-3-(trifluoromethyl)- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 3-Cyclopentyl-N-(thiazol-2-yl)-2-(3-trifluoromethylphenyl)propionamide

FS 3D CONCORD

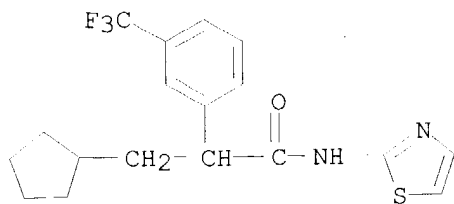
MF C18 H19 F3 N2 O S

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

L16 ANSWER 300 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 300353-71-3 REGISTRY

CN 4-Thiazoleacetic acid, 2-[[3-cyclopentyl-1-oxo-2-[[4-  
[(trifluoromethyl)sulfonyl]phenyl]propyl]amino]-, ethyl ester (9CI) (CA  
INDEX NAME)

OTHER NAMES:

CN [2-[[3-Cyclopentyl-2-[[4-(trifluoromethanesulfonyl)phenyl]propionyl]amino]t  
hiazol-4-yl]acetic acid ethyl ester

FS 3D CONCORD

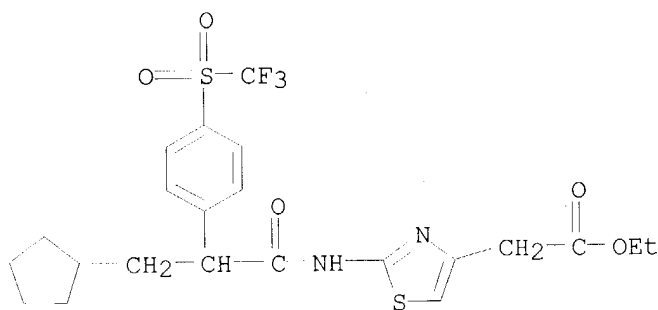
MF C22 H25 F3 N2 O5 S2

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA CAplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES  
(Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

L16 ANSWER 320 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

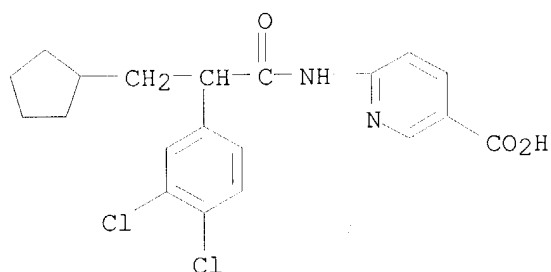
RN 300353-51-9 REGISTRY

CN 3-Pyridinecarboxylic acid, 6-[[3-cyclopentyl-2-(3,4-dichlorophenyl)-1-

oxopropyl]amino]- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 6-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]nicotinic acid  
 FS 3D CONCORD  
 MF C20 H20 Cl2 N2 O3  
 SR CA  
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL  
 DT.CA Caplus document type: Patent  
 RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT  
 (Reactant or reagent); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

L16 ANSWER 350 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 300353-19-9 REGISTRY

CN 5-Thiazolecarboxylic acid, 2-[[3-cyclopentyl-2-(3,4-dichlorophenyl)-1-oxopropyl]amino]- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 2-[[3-Cyclopentyl-2-(3,4-dichlorophenyl)propionyl]amino]thiazole-5-carboxylic acid

FS 3D CONCORD

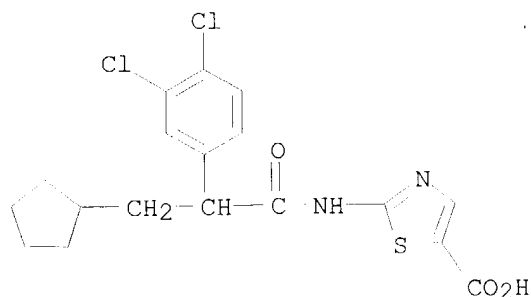
MF C18 H18 Cl2 N2 O3 S

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); RACT  
 (Reactant or reagent); USES (Uses)





## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

L16 ANSWER 370 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 300352-99-2 REGISTRY

CN 4-Thiazoleacetic acid, 2-[[3-cyclopentyl-2-[4-(methylsulfonyl)phenyl]-1-oxopropyl]amino]-, methyl ester (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN [2-[[3-Cyclopentyl-2-[4-(methanesulfonyl)phenyl]propionyl]amino]thiazol-4-yl]acetic acid methyl ester

FS 3D CONCORD

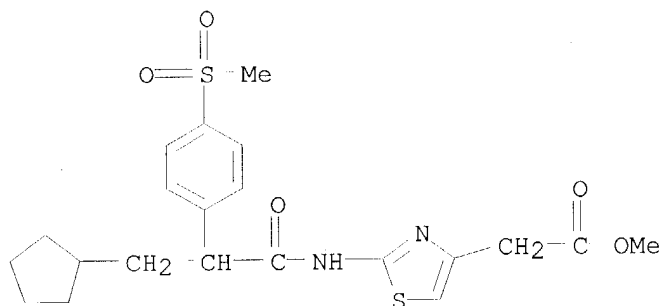
MF C21 H26 N2 O5 S2

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

L16 ANSWER 384 OF 384 REGISTRY COPYRIGHT 2004 ACS on STN

RN 300352-85-6 REGISTRY

CN Benzeneacetamide, 3,4-dichloro- $\alpha$ -(cyclopentylmethyl)-N-2-thiazolyl- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 3-Cyclopentyl-2-(3,4-dichlorophenyl)-N-(thiazol-2-yl)propionamide

FS 3D CONCORD

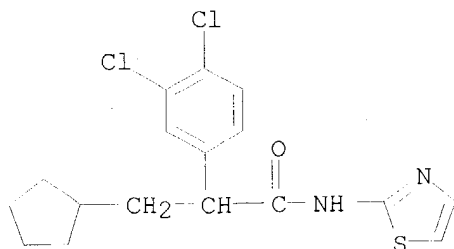
MF C17 H18 Cl2 N2 O S

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

DT.CA Caplus document type: Patent

RL.P Roles from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 139:214460

REFERENCE 2: 133:281775

=> □

=> d stat que l18 nos

L3 STR  
L5 842 SEA FILE=REGISTRY SSS FUL L3  
L10 STR  
L11 389 SEA FILE=REGISTRY SUB=L5 SSS FUL L10  
L17 3 SEA FILE=BEILSTEIN SSS FUL L10  
L18 1 SEA FILE=BEILSTEIN ABB=ON PLU=ON L17 NOT L11

=>

=>

=> □

=> d brn cn mf fw ln bso str

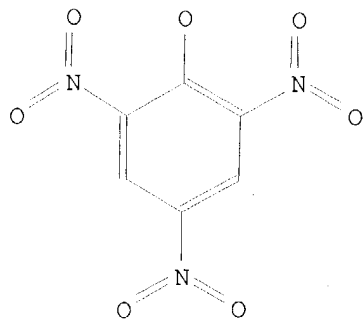
L18 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

|                           |                                                      |
|---------------------------|------------------------------------------------------|
| Beilstein Records (BRN):  | 3882737                                              |
| Chemical Name (CN):       | 2,3-diphenyl-propionic acid-<2>pyridylamide; picrate |
| Molecular Formula (MF):   | C20 H18 N2 O . C6 H3 N3 O7                           |
| Molecular Weight (MW):    | 302.38, 229.11                                       |
| Lawson Number (LN):       | 27378, 10795, 5222                                   |
| Beilstein Citation (BSO): | 4-22-00-03888                                        |

CM 1

FBRN 423400

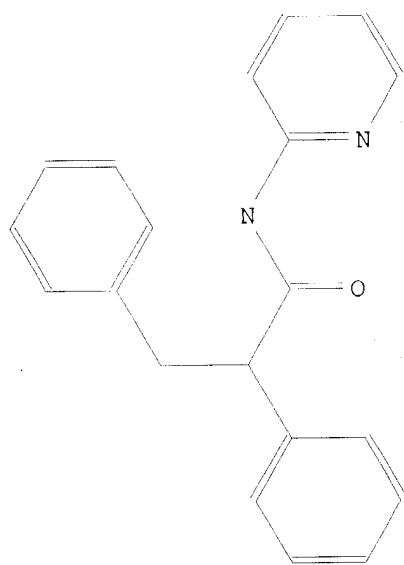
FMF C6 H3 N3 O7



CM 2

FBRN 258797

FMF C20 H18 N2 O



=>